PREFACE.

COMPARATIVE GRAMMAR treats of several languages in conjunction. It explains what has become obscure in one by that which remains intelligible in others. It is thus enabled to trace the origin of grammatical forms, and to illustrate the nature of language itself more fully and satisfactorily than could be done by the investigation of any one language separately.

Lord Bacon judged that to be the noblest form of grammar* which should compare the properties of many tongues, ' both learned and vulgar,' and so attain to a perfect system—as Apelles shaped his Venus, not according to one model, but from the separate beauties of many individuals.

No linguist, however, appeared for centuries to carry out this idea. Little was done until the discovery and study of Sanskrit literature gave the impulse and supplied the materials for those works upon the subject which have appeared in Germany during the last thirty years.

* ' Nobilissima grammaticæ species.' .

The results of this study are already considerable. The resources of language have been applied to the elucidation of Roman history,* and have established some important facts which escaped the penetration even of Niebuhr. The same means may reasonably be expected to place in a much clearer light the early social condition of many of the nations of antiquity.

It is also obvious that what makes language itself more intelligible will render important service in philosophical and ethical enquiries.

But it is in the acquisition and teaching of languages that Comparative Grammar will be found most extensively useful. It has been already applied to the Greek and Latin grammars; and it will not long be possible for anyone to teach them satisfactorily who has not at least made himself familiar with its leading principles.

An acquaintance with Comparative Grammar will be equally serviceable to the learner. Hitherto he has had to learn by rote what was never explained. He was told, for instance, that *hábes* and *habétis* are the singular and plural of the same word, without being able to see how the one was derived from the other. He had to learn by heart several hundred equally unintelligible symbols, as mysterious to him as the Egyptian hieroglyphics. No doubt a great part of the reproach which has fallen upon the study of languages, as being a mere exercise of memory, is the consequence of so

* See Mommsen's *Römische Geschichte.*

THE

STUDENT'S HANDBOOK

OF

COMPARATIVE GRAMMAR.

APPLIED TO THE

SANSKRIT, ZEND, GREEK, LATIN,
GOTHIC, ANGLO-SAXON, AND ENGLISH LANGUAGES

BY

REV. THOMAS CLARK, M.A.

LATE HEAD MASTER OF THE PROPRIETARY SCHOOL, TAUNTON.

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The follow   abb   at n are employed

s fo	A l Saxon	l th f	L th an a
e	E l h	o	Old Ge m n
ge	G m'	o s	Old S xon
go	Goth c		Sa sk t
	G eek	v	V d s
l	L t		Ze d
Du fo	D al	N fo	Ne ter
F	F m n e	Pl	Plu l
M	Ma ul ne	S	S l

many dead forms having to be learnt.   As soon as life is imparted to them by proper explanation, the study of languages will be found to promote a more healthy development of the entire mental constitution than any other study.   Many a youth who, under the old system, was glad to give up his Latin in exchange for the physical sciences, or was content to be behind others in a matter which he deemed to depend only upon memory, will then see that his judgment is called into exercise, and will feel as much pleasure in the study of languages as in that of geology or chemistry.

It is, therefore, not only important that the teacher should master this subject, but desirable also that its leading features should be made known to boys in the early part of their studies.

The works hitherto published are too extensive for general use, and one in a smaller compass appeared to be wanting.

In the following pages I have attempted little more than to put into a popular form what has been already established, and thus to meet the wants of those to whom the profounder and more voluminous works upon the subject are inaccessible.   The materials have been in a great measure derived from the masterly *Vergleichende Grammatik* of Prof. Franz Bopp, to whom I desire to make the fullest acknowledgment here, as it would have too much broken the continuity of the work to state in every case how far his views have or have not been adopted.   I have never differed from him without hesitation; and when his reasons have not appeared to

me to l e conclusive it no bettei solution offered itself
I have stated hi view and have added his a me as
an authoiitv In the words of Monsieui Regnier I
hall be ol a if my book help to increase the number
of the iead r of Li oieat work

A larger number of lanouaoe could not well have
been included in a woik of this compass and fewer
would no have sufficed adequately to illustiate the
principle of Comparative Giammai and to give the
subject a practical bcaiino for the English student

I snould have been glad to adopt Di Lepsius ad
miial^Je alphab tical system but it would have iequired
too gieat a depai uie from Enoli h arsociations for so
elementaiy a treati e

The employment of Gieek characters seemed un
avoidable In other iespects I have endeavoured to
make the work available for the merely English
student

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STUDENT'S HANDBOOK

OF

COMPARATIVE GRAMMAR

I. INTRODUCTION.

1. LANGUAGE is that which principally distinguishes man from the lower orders of creation. It is inseparable from his mental existence. Thought is internal language, and language is external thought. So distinguishing a quality of human nature could not fail to arrest attention in a reflecting age. Locke and Leibnitz recognised its importance in the philosophy of the human mind. But it was necessary to employ a mode of investigation which was then but little understood, before the essential connection and true relations of mind and speech could be discovered. As the animal economy needed the help of Comparative Anatomy for its elucidation, so the *Comparison of Languages* alone can explain some of the operations of the human mind.

In other respects, also, Comparative Philology was long regarded as of great importance. It was looked upon as serving not only to promote a more exact acquaintance with particular languages, but also as developing *the nature of language itself,* and thus aiding

B

in the solution of the difficult problem of the origin of language

These and other considerations led to many isolated efforts in this direction at an early period but it is only in the present century that the subject can be said to have assumed the features and acquired the proportions of a science   Since then it has had to encounter the fate of every new science   It has been magnified by extravagant pretensions and assailed by equally extravagant depreciation   Half knowledge on the one hand and utter ignorance on the other are equally prejudicial   But meanwhile a large number of works upon the subject have appeared from men of literary eminence composed in a spirit of moderation and bearing evidence of great power and deep research They have placed the science of language upon a secure basis and furnished the materials for its wide and rapid extension

2. Though an acquaintance with Comparative Grammar will not do away with all the labour and difficulty of acquiring the knowledge of languages it will nevertheless facilitate their acquisition   Much of the difficulty to a beginner lies in the strangeness of the forms which he meets with in a new language   Whatever diminishes this strangeness will proportionately diminish the difficulty of learning the language   He who is aware   for instance that in certain cases German word have *s* wher the corresponding words in English have *t* will more readily acquire a familiarity with the German words *was das weiss* from his previous acquaintance with the English words *what that white* than another will who begins his study in ignorance of this fact

The relation of Comparative Philology to history

admits of similar remarks. It has already thrown much light upon historical points which were obscure, and which, but for the scientific study of language, must have remained obscure. Some valuable illustrations of this may be found in the earlier part of Mommsen's 'Römische Geschichte.' But it is specially in regard to the ante-historical period of human existence that the Science of Language promises important results. A nation naturally desires to discover its origin, but history can trace its course only from the time when it had already reached a mature age. Its infancy, boyhood, and youth are hidden in a mysterious obscurity, or coloured by legendary tales. The Divine Record offers but few hints that could serve to connect modern nations with the earliest period; nor were they probably intended to prevent the inquiries of science, any more than the narrative of the fourth day's creation was designed to supersede the investigations of Astronomy.

It is not, however, exclusively nor chiefly on account of its practical utility that Comparative Philology deserves attention. It is worthy of being pursued for its own sake. Even in its present stage it shows that human language deserves no mean place among the objects of nature. It exhibits a growth as wonderful as that of the plants which furnish the materials for the science of botany, and develops laws as subtle as those by which astronomy explains the motions of the planets.

3. The great variety of languages is perhaps referrible to the intimate connection between spirit and speech. The characteristics of the one are expressed in the other. The human mind is exactly the same, probably, in no two individuals. Some peculiarity distinguishes the spiritual nature of every member of the human family. This

variety is reflected in the outward expressions of mind
In proportion a the intellect is cultivated the coun
tenance as times a more distinct individuality   In the
higher stages of civilisation no two faces contain exactly
  he same feature whilst a want of culture tends to
leave a dead uniformity of expression

Upon language also the mind impresses its own
individuality and but for artificial restraints against
multiplication there would be almost as many languages
as individuals   A thousand distinct languages are said
to be spoken upon the earth   The number of dialects
is immensely greater   There are places even in Europe
where the inhabitants of each hamlet or small district
speak such different dialects of one language as to be
almost unintelligible to each other   The uneducated
inhabitants of one county in England in some cases
deem the language of the next county strange and
almost barbarous   The people of Lancashire and those
of Hampshire both speaking genuine English would
be almost unintelligible to each other

This natural tendency to diversity is checked by
artificial means   The use of written and printed
characters the influence of education and social inter
course impart a certain degree of uniformity to the
speech of the same society or town or nation

It is evident that the attempt to form a Comparative
Grammar of the entire languages of the human race
would be futile The materials of those languages even
which have been stereotyped in a classical character
are not yet in a sufficiently forward state to be all
embraced in the same work

4   The Indo European branch of the great family of
languages contains the most important literature is the
most easily accessible and has to a great extent been

already examined and classified by eminent men, both
of the present and of past generations. This division
includes nearly all the languages spoken in Europe, and
a large proportion of those spoken in Asia, west of the
Ganges. Its range has also been extended in modern
times by migration. The English, French, and Ger-
man languages are spoken in the principal portion
of North America, and in isolated parts throughout
the rest of the world.

Various terms have been adopted as a collective
designation of these languages. Amongst them Indo-
European seems the best adapted for our present pur-
pose. It is at once intelligible to English readers, and
sufficiently comprehensive; for until these languages
were carried abroad by emigration, they were little, if
at all, spoken either eastward of India or westward of
Europe, whilst at a very early period they stretched in
an almost uninterrupted chain from the Ganges to the
Atlantic.

This division of languages, however, does not include
those commonly called Semitic, and a few other
strangers, of minor importance as far as concerns the
literature which they possess, or the numbers by whom
they are spoken, are mixed among the Indo-European
family. Thus the Georgian and Turkish in Asia; the
Turkish, Hungarian, Finnish, Lappish, and Basque in
Europe, must be left out of account. Probably further
investigation will show that some of these are more or
less intimately related in origin and development to
their neighbours.

5. The languages thus remaining under the desig-
nation Indo-European, are numerous and important.
They may be conveniently arranged in seven classes, of
which two belong to Asia and five to Europe. Another

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arrangement of them might be made into three divi
sions the first including five of the above classes
distinguished by the oldest grammatical forms the
second that which has intermediate forms and the
third that which ha the newest forms The reason for
this will appear more fully hereafter It will be suffi
cient at present to mention that in the nouns 1 *jugum*
e *yol e* ger *joch* the letters *g l ch* (for *l h*) distin
gui h the e divisions and that the same distinction is
indicated in the verbs 1 *docet* e *teaches* ger *eigt*
1y the letter *d t* (for *ts*)

1 INDIC OR SANSKRIT

6 In considering the *seven classes* we begin with
the most ea terly and that which also h s the most
ancient literature i e the SAN KRIT It is a language
which though possessing voluminous and valuable
works in prose and verse has but recently become
known to Europe The Science of Language as it is
now pursued may indeed be looked upon as one of
the results of the e tablishment of British dominion
in India For British resi ents Sir William Jones
amon st the first collected and brought over the stores
of this ancient literature which German philologists
with profound research and indomitable perseverance
have made subservient to the elucidation of all the
si ter languages

The modern dialects of Northern India though of
ne same stock interest us less in the following inquiry
The elucidation which we seek will be sufficiently
supplied by the Sanskrit under which name however
we include the *Vedas* as well as the more recent
literature specially called Sanskrit

The *Vêdas* are not only the most ancient literature of India, but are also the oldest expression of thought in the Indo-European languages altogether. The late Professor H. H. Wilson, reasoning from the latter to the earlier compositions, supposed the heroic poems in Sanskrit to have been written about 300 years B.C., the laws of Manu three centuries earlier, the prose *Brahmanas*, which elucidate the Vêdas, 800 B.C., and the *Vêdas* themselves about 1300, B.C. This, however, can only be looked upon as an approximation to the chronology of the whole, for the several parts are evidently the work of different authors, and some were manifestly composed at a much earlier period than the time when the whole were collected and arranged together as we now have them.

The Vêdas thus contain a literature older than the Homeric poems, and, what is more important in a grammatical point of view, it is the literature of a people who had migrated a much shorter distance from the primitive abode of the race, and undergone much fewer political and social changes than the Greeks, the forms of whose language, therefore, for this very reason, must be much nearer to the primitive type than either the Greek or any other branch of the same great family.

The Vêdas consist of four collections, the last being more recently made than the other three. Their names are: 1, *Rig-Vêda*; 2, *Yajur-Vêda*; 3, *Sâma-Vêda*, and 4, *Atharva-Vêda*. Each consists of two divisions, *i. e.* the text, or *Mantras*, and the commentary, or *Brahmanas*. The former comprises principally sacred hymns addressed to various deities. Many of these are representatives of natural objects, *e.g. Agni* ('fire'), to which the first hymn of the Rig-Vêda is addressed; the *Maruts* ('winds'), to which the nineteenth is in part

addre sed   Many are addressed to *In dra* who presides over the firmament and sends or withholds the fertilising shower   The valley of the Indus appears to be the locality where these hymns were produced   They reflect simple habits of life and a primitive state of society   The sacrifices offered are in general not costly and the blessings implored are principally the material advantages of the present life

The lan ua_ge of these hymns exhibits a nearer approach than any other to the first forms in which thought mu t have been expressed by the Indo European branch of the human family   It serves to clear up many points left in ob urity by the fra mentary state ot ot er languages and is an essential element in any just appre i tion of the questions d cussed in Com parative Grammar

The classical *Sanskrit* however though of a later date contains a richer literature and more abundant materials for linguistic investigation   The country in which it appears to have been first employed as a spoken lan uage and to which as a spoken language in its purity it 'was confined is India   The words preserved by Ctesias in the time of Artaxerxes Mnemon show that the influence of the language had extended over the south as well as he north   The people by whom it was employed are probably the same race as those who centuries earlier sang the Veda hymn on the banks of the Indus   Everything shows that they came from the north west and gained possession of India by conquest   The simple mythology which they brought with them wa soon remodelled under the hand of poets and sages and probably in part through contact with the primitive inhabitants whom they found in the country   India thus became the home and

the Sanskrit language the organ, of the Brahman religion.

The literature which is contained in this language extends over a considerable space of time. It must date its commencement, at least, soon after the invasion of the country. The earliest productions have probably perished, and it would be some time before the heroic deeds of the invaders would be made the ground-work of the voluminous epic poems *Mahábhárata* and *Rámáyana*. It ceased to be a spoken language in consequence of the popular agitations in behalf of Buddhism, and the prominence given to the common dialects in opposition to the language of the predominant religion. Sanskrit, however, continued to be the language of the Brahman religion, of learning, and of poetry. It contains numerous works in various branches of knowledge from the earliest to recent times.

The utility of this language in our present inquiry results from the almost perfect preservation of forms which have only a fragmentary and perplexing appearance in modern languages. The English word *came*, for example, is used by us as a past tense, although nothing in its letters indicates past time, unless it be *a* instead of the *o*, of the present *come*. This, however, is not felt to be a tense-sign at all, for it occurs in just the reverse way in the present *break*, as compared with *broke*. Nor is there any termination to the word *came*, except in the almost obsolete second person singular *camest*, to show what person and how many persons came, whilst in Sanskrit a corresponding word not only indicates the tense, but has no less than nine different endings, to show whether it applies to the first, second, or third person, and whether it includes only one or two or more individuals. The enigmatical second

person singular *car iest* is explained by one of them
Again the same langua e has eight different endings
for as many case of a n un   One of them presents the
form out of which the En li h possessive *s* has come
This te mination thus appears to be the remains of a
form older than the English language itself and not to
have come from adding *his* to a noun and then con
tracting these to ether as some have assumed   thus
takin   queen s own to b for   queen his own   and
  men s ideas for   men his idea   That such expres
sions occur in English writers as   the king his horse
only show   that whoever fir t originated them found the
form of the po e sive case ob cure and could not rest
without explaining what they did not understand
Thus an appeal to older records supplies the part of the
inscription which time had obliterated

The Sanskrit will generally be ppealed to in the
following pages   the Vedas sometimes a having a few
remains of a still older form   but other languages nearly
related to them will not come within our scope   They
are the following

1 The *Pi ic it* or popular dialects assi ned to subor
dinate characters in Sanskrit dramas   They are gene
rally distingui hed by a considerable softening of sounds
and decay of grammatical forms

2   The *P ili* which was conveyed by bani hed
Buddhists to Ceylon   It became like Sanskrit   iom
which it differed principally in the loss of grammatical
forms   a learned language   It contains theological
works on the Buddhist religion as early as the fifth
century A D

3 The *hai i* which was preserved in the Islands
of Java and Bali as a literary and poetic language
Its grammatical forms became mutilated   very much

like those of the Pali, by contact with a strange people.

4. The *Gypsy* language belongs to the same class, for after the most varied theories had been adopted respecting their origin, as indicated in the names Gypsies (Egyptians), Bohemiens (Bohemians), it has come to be generally admitted that this singular people came from India. Their language is the old Sanskrit, though very much corrupted and mixed with foreign elements.

The modern languages of India belonging to the same family are reckoned by Pott to be twenty-four in number. The principal is the Hindostanee: They all bear the relation of daughters to the Sanskrit, and not that of sisters, like the four noticed above. They have each a peculiar deviation of features from the primitive type, and have only a subordinate relation to our subject.

2. IRANIC.

7. The *second class* of the Indo-European languages is called *Iranic*, and belongs principally to the country between the Indus and the Tigris. It is so called from the Persian word Iran—another form of the Sanskrit word Aryan—applied to the region which stretches from the chain of the Hindoo Koosh to the Persian Gulf. The term Iranian includes a considerable number of languages.

1. Of these the oldest is the *Zend*, the language of the Zend-Avesta, or sacred writings ascribed to Zoroaster. The country where this language prevailed, and the people by whom it was employed cannot be exactly defined, and the language itself presents many difficulties. Early investigations in it were carried on

principally by mean of translations and presented therefore but confused and unsatisfactory results Of late however it has been subjected to more scientific investigation and much assistance has been derived from the discovery and elucidation of the arrow headed inscriptions belonging to the time of the Achæmenidæ The age of Darius to whom some of these inscriptions owe their existence is well known and it lends some help in conjecturing the age of the Zend Avesta For on comparing the grammatical forms of the inscriptions with those of the Zend language the latter are found to be of an older character and they therefore belong to an earlier date They are thus referred to a period earlier than the fifth century B C These writings are loosely spoken of as the writings of Zoroaster but the date of his existence is a problem not yet satisfactorily solved Besides it appears that only a small portion can justly be ascribed to him and therefore if the time when he lived could be fixed it would leave the chronology of a great part of the Zend Avesta doubtful

The great difference between the grammars of the Sanskrit and the Zend might favour the idea that some centuries had elapsed after the separation of the two peoples before the Zend acquired the form in which it was written Such would undoubtedly be a reasonable inference if we could assume that the Zend was developed from the Sanskrit But the two peoples may have spoken very different languages even before they separated just as in England the people of two counties or the educated and uneducated in the same county speak differently one from another It appears to have been a religious movement which caused the separation of the Iranian from the Indian branch The oldest

Iramans were fire-worshippers. It is in the natuie of things probable that the zeal for this religion would manifest itself chiefly in some particular province, and principally affect some paiticular class of the community, probably not the most educated. They would, therefore, already have a characteristic — a so-called provincial — language. So that if the Zend-Avesta were written immediately cn the separation of the two peoples, its language would differ very much from that of the educated classes whom they left, and whose writings have become known to us as Sanskrit. The word Iranian itself furnishes one illustration out of many which might be adduced. The Sanskrit word Aryan appears in Zend as Airyan, in accordance with a general practice that, when *y* follows a single consonant, *i* is inserted in the preceding syllable. Thus what one (perhaps the educated) called *aryan* (*ar* as in *far*), the other (peihaps the uneducated) called *airyan* (*air* like *ir* in *fire*). Even now, in English, where one says ' *are* you coming,' another says, ' *aire* you coming.' Whatever caused the difference, it may have existed before the sepaiation of the peoples, and, therefore, supplies no argument against the antiquity of the Zend-Avesta.

We find here two circumstances which render the Zend valuable in a work on Comparative Grammar. One is that it presents another instance of a very ancient and almost primitive language of the Indo-European family, side by side with the Sanskrit. The second consideration is that it presents grammatical modifications peculiarly its own, and thus serves strikingly to elucidate the genesis of language.

Pott seems inclined to fix its locality in Bactria, and Professor Schleicher calls the language Old Bactrian.

But it is not well to build too much upon what is merely hypothetical

2 The next Iranian language in historical order is that of the *c or hea led inscriptio is* belongin to the rei n of the Achæmenidæ which therefore belongs to the fifth century B C and to the land of Media The phonetic decay of its form shows that it belongs to a later period than the Zend

 The modern *Persian* strikingly illustrates the destructive effect of time upon the framework of lan gua e Like the English it has preserved but few ren ains of the inflections which are so abundant in the older languages of the same class It was a ha ty generalisati n which led to the idea that the Persian was closely related to the modern languages of Ger many and England and that the fuller forms of older dialect were only excrescences which disfigured them A juster analysis has shown that in regard to gram matical inflection these modern languages are but scanty ruins whilst the Sanskrit presents a grand and almost complete edifice

4 To the east of Iran there are a few scattered populations which have issued from the same stock and speak languages belonging to the same class as those mentioned above They have thus far rendered but little service to Comparative Grammar and here require but a brief notice

The *Pushtoo* in Affghanistan is nearly related to the Persian but exhibits some peculiar grammatical forms and has a large admixture of foreign words The *Belooche* of which but little is known is spoken at the mouth of the Indus and the *Parsee* by the Parsees in Guzerat and elsewhere

5 To the westward we meet with three other mem

bers of the same family. The language of the *Koords* in Koordistan; the *Ossetic*, spoken by a small mountain tribe on the Caucasus, who call themselves Iron, and their country Iron-sag, thus preserving the tradition of their origin; and the *Armenian*, which possesses an important literature, including a translation of the Septuagint, made at the beginning of the fifth century, and of the works of some of the Greek fathers. It seems likely, when further examined, to render more extensive service upon questions of Comparative Grammar than any other language of this class, except the Zend.

Almost all the modern literature of this class of languages contains a considerable admixture of Semitic words, in consequence of their geographical position, and of the spread of Mohamedanism.

The Iranian class of languages is remarkable for the number of characters employed in writing them, the Zend, the Arrow-headed inscriptions, and the Armenian, having characters quite distinct one from the other.

3. LETTO-SLAVIC.

8. The *third class* consists of the Lettic and Slavic languages.

1. The *Lettic* includes the Lettish, the Lithuanian, and Old Prussian. The Lettish is spoken in Kurland and Livonia, but has been much corrupted by the influence of other languages.

The *Lithuanian* is now spoken by only a small population in the north-east of Prussia and in the neighbouring districts of Russia. Its literary store is very circumscribed and of recent date. It has, however, considerable value on account of its almost perfect pre-

servation of some of the original grammatical forms
The *Old P r s an* which has now ceased to be a spoken
language bore a very close re emblance to the Lithua
nian   They were neither of them much expo ed to the
influence of those external causes which generally modify
the language of a people   The Lithuanians occupied
a flat and marshy country and never attained a very
high state of civilization   The character of their home
together with the inactive political life which they have
led will help to account for the unaltered state of their
language   The Sanskrit for instance has probably
preserved the interrogative pronoun in its primitive
state   It there appears a *kas* so written three thousand
years ago   In the Lithuanian as spoken at the present day
it is likewise *kas* whilst the Greek almost three thou
sand years ago had changed it to *hos* the Latin above
two thousand years ago to *quis* the Gothic fifteen hundred
years ago to *hvas* and we have it in the still further
reduced form of *hwo* (*who*)   The Lithuanian *l atr as*
again is almost identical with the Sans *l atar as* whilst
the Greek is *r oteros* the Lat *uter* the Go *hvathr a*
and Eng *whether*   There is perhaps no other people
who have spoken the original Indo European language
with so little alteration in many of its grammatical forms
for the same length of time

   9 2   The *second br a ich* includes a large number of
languages stretching from the Adriatic to the Gulf of
Finland and from the coast of the North Sea to the
Ural mountains   They are condensed together how
ever principally in Russia and Austria   History cannot
trace the Slavic population back to their original abode
in Asia but it finds them at a very early period in the
extreme East of Europe   Herodotus in the fifth cen
tury B C   speaks of the Βουδινοι iv 21 and Larcher in

his note upon the passage says, 'The opinion of Rennel
and Heeren, who assign the *Budini* to the vicinity of
Voroniej near the southern border of the government
of Tambof, is entitled to preference.' The description of
them accords with the idea of their being a part of the
Slavic people, and Shafarik, in his important work upon
the antiquities of the Slavic race, does not hesitate to
claim them. This people, therefore, who probably left
the primitive abode at about the same time as the
Iranians, are found on the north of the Caspian at
the time when the Medes under Darius were leaving a
written memorial of their presence on the south of the
Caspian in the arrow-headed inscriptions. They appear
in Dacia, north-west of the Black Sea, in contact with
the Romans under Trajan, at the beginning of the
second century of the Christian era. We find the evi-
dence of their presence later in Pannonia, for *Buda* is
one of the names of Pesth, the capital of Hungary, and
in more recent times they gave its name to the town of
Bunzlau, more properly Budissin, in the Prussian pro-
vince of Lusatia. Thus, as time passes on, we find them
proceeding further westward.

The Slavonians began to attain political consolidation
and importance after the death of Attila, who with his
Huns had held them in terror and subjection. The Bo-
hemian nation appears as early as 650; the Bulgarian
about the same time, but in greater power under Boris
in 850; the Moravian under Rastisiaw and the farfamed
Swatopluk during the ninth century; the Polish as
early as the seventh century; the Russian under Rurik
in 862; and the Servian in the eleventh century. Some
of these states for a short time extended their dominion
along the south coast of the Baltic and westward to
the mouth of the Elbe. The only independent Slavic

nation at present is Russia, the rest being under foreign
dominion and the imperial family even of Russia is of
German origin

The literature of the Slavonians is modern   The
earliest remains go no further back than the ninth cen
tury   The first impulse was given to it by the two
brothers Methodius and Cyrillus (Constantine) who
came from Constantinople as Christian missionaries to
labour among the Slavonians as Ulfilas had done four
or five centuries before among the Goths   They made
an alphabet founded upon the Greek character which
with some modifications is still employed in Russia and
Servia   They translated the Gospels into the language of
the people among whom they dwelt who were probably
the Bulgarians   The language is therefore sometimes
called Old Bulgarian as well as Old Slavic and Church
Slavic   The last name is employed in consequence of
the language in which the missionaries made their trans
lation being still employed in the services of the Greek
Church   so that like the Latin in the Roman Catholic
Church it has acquired an ecclesiastical character   Nes
torius in the eleventh century also wrote his Chronicles
of Russia in the same language

No less than fifteen languages are enumerated as be
longing to this class   Several of them however have had
but little literary development   Those which contain the
most important literature are — 1 the *Bohemian* whose
remains begin with a collection of national poems be
longing to the thirteenth century   2 the *Polish* which
begins with the Psalter of Florian belonging to the
thirteenth and fourteenth centuries   and 3 the *Russian*
which has made rapid progress since the time of Peter
the Great   and now possesses an extensive literature
especially upon scientific subjects

The Old or Church Slavic is the most serviceable of
this branch for the purpose of Comparative Grammar,
but this entire class is not quoted in the following work
because the Sanskrit and Zend elucidate the points to
which it would apply, sufficiently for our purpose.

4. GRÆCO-ITALIC.

10. The *fourth class* is the *Græco-Italic*, spoken
principally in the two great peninsulas which run south-
wards into the Mediterranean, and in the neighbouring
islands. That neither the Greek nor the Latin owes its
origin to the other, but that they are related together as
sister-languages becomes obvious on an examination of
their grammatical forms and the roots of words. Their
resemblance to one another is somewhat disguised by
their being written in different characters, and by the
circumstance that different means are resorted to in
expressing the analogous changes which time has pro-
duced in both. The defective analysis of former years
caused the Latin to be spoken of as *derived* from the
Greek, whereas recent investigations have shown that, in
some instances at least, the Latin has older forms than
the Greek. Such, for example, is the preservation of
the ablative singular which is wanting in Greek, and the
fuller ending *-bus* in the dative plural. Greek, on the
other hand, undoubtedly has many older forms than
the corresponding Latin ones. Evidence also supports
the theory that the Italic tribes did not enter Italy by
sea from Greece, but by land from the north. The
Hellenic and Italic races seem to have parted company
in the neighbourhood of the Danube and to have taken
a southerly direction previously to the approach of the
Slavic race, which we have seen in the same region.

The first three cases probably of the original abode
of the family at the same time the Indian taking a
south eastern direction the Iranian a south western
whilst the Slavic went directly westward   We now
come to those languages which from their more westerly
position and from the greater deviation of their lan
guages from the original type seem to have left the
common home at an earlier time   Their history also
exhibits them in a more adventurous and victorious
character which agrees with the idea that they were the
first to break off the associations of home and dare to
invade distant lands

21 1 The *G eel* language claims our first attention
from its occupying a more easterly position and pos
sessing an older literature than the Latin   It flourished
principally in the eastern peninsula of the Mediterranean
in the islands of the Archipelago and on the western
coast of Asia Minor   It there produced the most perfect
literature in the world—a literature which continues
greatly to influence the opinion the character and the
insti utions of all the members of the Indo European
family throughout Europe and America

The variety with which Greek was spoken as a living
language is illustrated in three principal *dialects* the
Æolic Doric and Ionic   The last differs considerably
from the other two   This difference is illustrated in
the national legend by Æolus and Dorus being repre
sented as sons and Ion as a grandson of Hellen   The
Ionic grew up in a foreign land Asia Minor   a fact
represented in the legend by the name of Ion s father
Xuthus meaning banished

The *Ionic* far surpasses the other dialects in the
abundance and perfection of its literary remains   The
oldest form in which it appears is the *Epic* dialect of

Homer and Hesiod, whose date is variously fixed from the twelfth to the ninth century B.C. It next appears in the *New Ionic* of Herodotus, which belongs to the middle of the fifth century. But its richest productions are in the *Attic* dialect, brought to marvellous perfection by dramatists, historians, philosophers and orators, from the middle of the fifth to the middle of the fourth centuries.

The *Æolic* was spoken chiefly in Asia Minor, Bœotia and Thessaly, and includes the celebrated names of Alcæus, Sappho and Corinna. The range of its literature is very limited, but it preserves some very old forms in its grammatical construction, and has a special interest from its close resemblance in several points to the Latin language.

The *Doric* was spoken chiefly in the north of Greece, in the Peloponnese, in Crete, and in Sicily. Its principal representatives are Pindar and Theocritus.

The Greek furnishes us with striking examples illustrative of the effect accomplished in a certain length of time by the influences which are continually producing phonetic decay in living languages. The language of Homer may be regarded as five hundred years later than that of the Vêdas; and this difference of time corresponds with the difference of form in the one language as compared with the other. For instance, the genitive case singular of the *a* stems in Sanskrit ends in *a-sya*. In Homer it is *o-io*, in which we see that every element has undergone a change; for *a* the lighter vowel *o* is substituted in both cases, for *y* the vowel *i*, and *s* is lost altogether. Five hundred years later, again, the Attic dialect presents to us the same form reduced to *ou*; that is, *oo* is reduced to the weaker form *ou*, and *i* is lost altogether. These changes are not sporadic instances

which might be owing to accident They affect the entire
ma of the language to which they belong and rest upon
general principles There s no example of the older
a sya in the language of Homer nor any instance of the
Homeric *o io* in the Attic dialect The e effects appear
as if they were accomplished at once and the efore arti
ficially but this only re ults from our not possessing
literary records during the time which intervened be
tween these epochs to illustrate the gradual approaches
towards the final result Any one will see how gradu
ally such modifications are effected who examines the
change which is oing on from *th* to *s* from *hath* to *has*
or instance in the third person singular of the present
tense in Engli h verbs It is long since it began and it
is not yet completed but if when *he th* is exterminated
and *has* is universal all the intervening literature be
tween the first employment of *s* and the last use of *th*
were to disappear we should have an instance similar
to those noticed above

12 2 The *Italic* branch of this class of languages
belon s almost exclusively to the western peninsula of
the Mediterranean The Latin tribe gradually gained
the upper hand in the polit cal constitu tion of the coun
try and the Latin lan uage became the organ of public
life of education and of literature It was not how
ever the only language spoken by the Indo European
population who entered the peninsula from the north
It is evident that before their arrival or soon after their
settlement their speech was marked by varieties as dis
tinct as the Greek dialects and though only one has
become embodied in a considerable literature yet some
important remains belonging to others have recently
been discovered

The science of language has thrown considerable

light upon the character of the ancient population of
Italy. It seems to have been invaded in succession by
very different races. Some of them probably were not
Indo-Europeans. But several tribes of which remains
have been preserved evidently belong to the same family
as the Latin. In the extreme south-east of the country
inscriptions have been discovered composed in a lan-
guage which, for want of a better name, has been called
Iapygian. It appears at one time to have prevailed
more or less throughout Apulia and Calabria. The
remains of this language have not yet been sufficiently
deciphered to determine the exact ethnological position
of the people by whom it was spoken, and they appear
to have presented but little if any resistance to the
superior civilisation of Greece; for Apulia, which is
spoken of in the time of Timæus the historian (400
A.U.C.) as inhabited by barbarous Iapygians, in less
than two centuries appears to be an entirely Greek
district.

Clearer evidence is supplied of the relation of two
other peoples, or branches of the same people, who
early occupied the middle of the peninsula, *i.e.* the
Latin and the *Umbrian* branches. The latter, including
the Marsians and Samnites in the south, comprised a
considerable population. The dialects which prevailed
amongst them have a close resemblance to one another,
but in many points they form a contrast to the Latin.
Distinctions appear which are also found in other
classes of the Indo-European languages. Thus, where
the Roman employed q, as in the interrogative pro-
noun, the Samnite and Umbrian employed p, sounds
which also distinguish the Ionic from the Attic dialects
in Greek, and the Celtic languages in Bretagne and
Wales from the Gaelic and Irish. The Latin language

has upon the whole some such relation to the Umbro
Samnite as the Ionic has to the Doric whilst the va
rieties in the Oscan and Umbrian as well as other
dialect related to them in distin tion from the L tin
are similar to those of the Doric in Sicily and in
Sparta

Of all the Italic languages the *Latin* only has fur
nished us with any considerable literature and from it
therefore our examples for this branch of languages
will be principally derived It presents no great lite
rary works in a perfect state earlier than the second
century B C What precedes that period is fragmen
tary or only brief These older remains exhibit some
archaic forms which are of ment value But Roman
literature is everal centuries later than that of Greece
which of itself is sufficient to account for the termi
nations of Latin words bein upon the whole much
more curtailed than the corre ponding Greek ones
Thus the genitive singular which appears in Sanskrit
as *a sya* in Homer as *o io* and in Attic Greek as *ou*
(from *oo*) is in Latin two or three centuries later
reduced to *i* (from *oi*) The classic literature of the
Latin language is not only of a later date but i also
far inferior in extent and variety to the literature of
Greece The style of the two differs materially The
Latin is distin uished rather by a sonorous majesty
and exactness of expre sion than by the graceful
elegance and endless versatility of her Grecian sister
But their close relationship to one another is neverthe
less undeniable This is rendered evident by an ex
amination of their grammatical structure and it would
be unnecessary to quote two languages so nearly allied
in order to illustrate Comparative Grammar but for the
circumstance that they supply each other s defects in a

remarkable manner.   Thus, for instance, the letters s,
w, y, are generally either lost or disguised in certain
positions in Greek, but are more or less fully preserved
in Latin.   On the other hand, the aspirates, which are
numerously represented in Greek, are generally lost or
altered in Latin.   Again, the Greek preserves short
vowels when final, but the Latin drops them, whilst
final consonants, lost in Greek, are preserved in Latin.
So, also, the Greek distinctly preserves the important
aorist forms, but has greatly obscured the reflexive
pronoun in verbs, whilst in Latin the latter is unmis-
takable and the former almost absent.

5. CELTIC.

13. The *fifth class* consists of the *Celtic* languages.
This name appears, variously modified, in application to
the *Galatians* of Asia Minor, the *Gauls* (Galli) of
northern Italy and France, the *Celt*-Iberi of Spain,
and the *Gael* of Scotland.   The earliest notices of the
people represent them as occupying a considerable part
of the south-west of Europe and the British Isles,
but we have no historical evidence to connect them
with the original abode of the family in Asia.   The
settlement in Asia Minor appears to have been the
result of a migration eastward from Europe.   Bohemia
owes its name to them, for the Boii were one of their
tribes.   The Celtic languages are now spoken in Ire-
land, the Isle of Man, the Highlands of Scotland,
Wales, and Bretagne.   Some remains also are preserved
of the language of Cornwall and of the ancient Gauls.
The principal literature of the Celts belongs to a recent
period, and the inflections of the language have, conse-
quently, become greatly abridged.   No doubt, however,

remains of the fact that the Celtic belongs to the Indo
European family and that it is very nearly related to
the Italic language   The effect which time has had in
abridging or destroying the grammatical inflections will
be seen in comparing the Irish *ech* horse with the
Latin *equus* and the Sanskrit *a w as*   and *deich* ten
1 *dec er* is *da an*

The Celtic languages are also subject to some pecu
liar phonetic changes   One of them is the assimila
tion of vowels by which a weak or strong vowel causes
the insertion of one of its own class in the preceding
syllable if there be a t one there already as in *echaire*
$\widehat{e}$ *ie* (mulio   muleteer) which requires for its full
explanation the help of the corresponding Latin word
equarius groom   The *i* after *r* has caused *i* to be
inserted before *r* which then ultimately causes *a* to
disappear   A similar influence is exerted in other
cases upon a subsequent syllable for example the *a* of
labra in *labra tar* (1 *loquu n tur*) requires the ending
to be *tar* whilst the *i* of *abri* in *labir tir* (1 *loqua n tur*)
requires *tir*

Another striking peculiarity is the aspiration of
initial consonants that is *h* is added to an initial con
sonant in connection with certain changes of inflec
tion or derivation thus *gair* is voice and *fo ghur*
sound

These and other peculiarities render it difficult to
introduce the Celtic languages into a work like the
present   The necessary explanations would greatly
increase its bulk and the peculiar phenomena of this
class of languages would render the subject more com
plex than is desirable for an elementary work

6. TEUTONIC.

14. The *sixth class* is the Teutonic, including three principal branches, the Gothic, the Low German, and the Scandinavian. It is distinguished from the *Germanic*, which comprises the High German language. These terms are employed not as being scientifically accurate, for that would be difficult at the present stage of the subject, but as being intelligible and definite.

The sixth and seventh classes form the second and third divisions mentioned in section **5**, and are distinguished from the classes of languages previously enumerated by a remarkable feature. The operation of what is called Grimm's Law of Consonant Changes separates the sixth and seventh classes from the other five, as well as from one another. At present the cause of these changes is hidden. Why should the sounds *k, t, p* have been changed by the Teutons for the aspirates *kh* (*ch, gh*), *th* (*dh*), *ph* (*f, v*)? Not from any preference for aspirates, for the original aspirates at the same time were changed to *g, d, b*. Nor are these latter special favourites, for in their turn they have to give place to *k, t, p*. All the languages of the sixth class have undergone this change, though in many respects they differ greatly from each other, and many of them, as long as history has known them, have been entirely independent one of the other. Of course, however, the presumption is that when the change was made they all formed but one language. We will take the following instance, illustrating the effect upon letters belonging to both the labial and dental organs: the Icelandic word *fotr*, Swedish *fot*, Gothic *fotus*, Anglo-

Saxon *fot* English *foot* Old Saxon *fot* Friesian *fot*
Dutch *voet* all have the ʋ punte (*f v*) for the first
consonant and the mute (*t*) for the last the final ʋ and
s in two case being the nominative sign   Now the
classes of language which we have considered before
agree in having a mute (*p*) for the first consonant and
a vocal (*d*) for the   as   e g Sanskrit *pad as* Greek
pous for *pods* gen *pod-os* Latin *pes* for *pecs* gen
pel is

It is moreover singular that from the sixth class
as a starting point a perfectly analogous change is
made in producing the seventh class or the High
German language   Thus the word mentioned above
is in High German *fuss* which does not preserve the
final *t* of the sixth class nor return to the original *d* of
the other classes but changes the mute into an aspirate
The aspirate however has become *s* in modern German
generally as it has in modern English in the third
person singular present of verb   e g *has* for *hath*   It
was also the practice to preserve the characteristic *t* of
the sixth class when final thus producing *ts* hence by
assimilation is formed *ss*   In other cases the compound
is written   and pronounced *ts*   Imit al aspirates appear
to have resisted the change and therefore *f* remains in
the above word instead of becoming *b*   But the regular
change is seen in the word *leib* as compared with the
English *loaf*

The time when these changes took place cannot be
exactly determined but Grimm identifies the *Goths* and
Getæ and the latter as far as their language is known
to us seem to have retained the original consonants
Indeed the names indicate the difference for Getæ has
the mute (*t*) in place of which Goths has the aspirate
(*th*)   The consonant change generally therefore

probably accompanied this change of name, and took place as the Getæ disappeared, and the Goths acquired importance, that is, a short time before the beginning of the Christian era.

Not only the Getæ, but also the Thracians, are identified by Grimm as belonging to the same race of people with the Goths. We have thus the means of tracing them to an early period, and to a remote easterly position. The Thracians are mentioned by Homer, and are described by Herodotus as being more numerous than all others except the Indians. He mentions also that Darius encountered the Getæ on his march to Scythia. We thus find evidence of the presence of the Teutons in considerable numbers on the north-west of the Black Sea, at a time when a large body of the Slavonians were north of the Caspian, and the Celts were in the west of Europe, whilst the Græco-Italic race already possessed the north coast of the Mediterranean. The order in which they entered Europe appears, therefore, to have been the following: 1. The Celts; 2. The Græco-Itali: 3. The Teutons and Germans; 4. The Slavonians.

15. 1. *Gothic.* A remarkable passage in Strabo confirms the view taken by Grimm as to the relation of the Getæ, Thracians, and Goths; for he states that in the time of Augustus, 'Ælius Catus brought from beyond the Ister (Danube) 50,000 persons of the Getæ, a people speaking the same language with the Thracians, into Thrace, and they now live there under the name of Mœsians.' Now, it was for the inhabitants of Mœsia, that Ulfilas, 300 years later, made his translation of the Scriptures, which is hence called the Mœso-Gothic. This work, though preserved only in fragments, is, in some respects, the most important of

all the literary remains of the Teutons for the purposes
of Comparative Grammar. It belon s to the years
360— 80 A D but preserves many traces of the lan
guage of a much earlier period especially in the use of
the short vowels *a ι u* It exhibits however the
effect of time in wasting away the grammatical inflec
tions of words It preserves two of the four letters
mentioned in Sect **11** as originally belonging to the
genitive case singular but this is probably in conse
quence of *s* being one of the two The Gothic form
vulf *ι s* appears fuller than the earlier Latin equ *ι* (for
equ *o ι*) but *rι* the sign of the accusative singular
which is still preserved very fully in Greek and Latin
is almost entirely lost in Gothic

⁀ The *Low German* branch includes (*a*) The Old
Saxon spoken on the continent and supplying a
valuable poem of the 9th century called the Heljand
(Saviour) (*b*) The Friesic spol en by a numerous
population who occupied the coasts of the North Sea
from Flanders to Jutland in the 13th century It
contains some remains of the 13th and 14th cen
turies which strikingly resemble the language of the
Angles (*c*) The Dutch (*d*) The Flemish and (*e*)
the *Anglo Saxon* This last is the most important of
the Low German branch both in regard to the compass
of its literature and its near relation to our own lan
gua e The poem of Beowulf exhibits the ante chris
tian ideas of the 6th and ιth centuries and contains
many reminiscences brought over from the continent
although in its present form it is of a much later date
and greatly christianised The oldest Anglo Saxon
remains are three or four centuries later than the
Gothic of Ulfilas and the grammatical forms are cor
respondingly diminished The sign of the nominative

singular *s*, for instance, retained in the Gothic, as well
as in the older languages, is lost in Anglo-Saxon. Thus
the Anglo-Saxon, *gaest*, 'guest,' suffers in comparison
with the Gothic *gasts*, and the Latin *hostis*. Some
vestiges of the ancient heritage remain, but it only
required another step aided by the political convulsions
of the country, to reduce the language in 800 years
more to the denuded state of modern English.

3. The *Scandinavian* branch includes: (*a*) The
Icelandic, which possesses an extensive and valuable
literature, some of it dating as far back as the 9th
century. (*b*) The Swedish, which, especially in the
earliest periods, nearly resembles the Icelandic. Its
literary remains begin at about the 10th century.
(*c*) The Danish, whose literature begins with the latter
part of the 12th century. It has suffered great changes
from the original type, especially in the loss of its
grammatical forms, and also in its roots.

7. GERMANIC.

16. The *High German* forms the last class. Its
relation to the other languages has been already pointed
out. Its literary remains date from the 9th century.
As they thus begin 500 years after the time when the
Gothic translation was made, they naturally exhibit a
still greater falling off in the grammatical forms. In
some cases, however, the High German preserves a
fuller form than the Gothic. For instance, the first
person plural of verbs ends in *-més*, where Gothic has
only *m*, as in *bair-a-m*, whilst the Latin has *-mus*, as
in *fer-i-mus*.

The grammatical forms of the High German are
sufficiently represented for the purposes of this work

ξ the sixth clas whilst the peculiarity which distin guishes it ~from tha clas is treat ed of in the sec ti n referrin to Grimm law See Sect **93—104**

The object of th above outline is not to supply a full descri ption of the Indo European family of lan guages but merely to furni h a general classification which may aid the reader to bear in mind the relative position chronologically and geo raphically of the languages p incipally referred to in the following pages

II. ALPHABETS.

a) THE SANSKRIT ALPHABET.

17. The Sanskrit Alphabet consists of the following characters:

Form	Characters employed in the following pages	Power	Example
अ	a	a	had
आ	â	â	fâr
इ	ı	ı	hıd
ई	î	ê (ee)	heed
उ	u	oo	hood
ऊ	û	ôo	food
ऋ	r̩	rı	rid
ॠ	r̂	ree	reed
ऌ	lṛ	lri	wheelrim
ॡ	lr̂	lree	all reed
ए	ê	â	made
ऐ	aı	î	hide
ओ	ô	ô	bode

Form.	Characters employed in the following pages	Power	Example
श्रौ	au	ou	loud
क	k	k	bake
ख	kh	kh	bakehouse
ग	g	g	log
घ	gh	gh	loghouse
ङ	ng	ng	ring
च	ch	ch	reach
छ	chh	chh	reach here
ज	j	j (dg)	judge
झ	jh	jh (dgh)	judge him
ञ	ṅ	ṅ	injure
त	t	t	right
थ	th	th	right hand
द	d	d	red
ध	dh	dh	red hand
न	n	n	then
ट	t	ṭ	———
ठ	th	th	———
ड	ḍ	ḍ	———
ढ	ḍh	ḍh	———

Form	Characters employed in the following pages	Power	Example
ङ	n̐	n	————
प	p	p	loop
फ	ph	ph	loophole
ब	b	b	job
भ	bh	bh	job-horse
म	m	m	room
य	y	y	yea
र	r	r	ray
ल	l	l	lay
व	w, v	w	way
झ	z	ż (s)	pleasure
ष	sh	sh	shed
स	s	s	said
ह	h	h	head
ळ	ḻ	ll (in Welsh)	————

Remarks.

18. In the examples given a vowel is to be considered short when not marked long; e. g., in *rájan,* the first vowel is long and the second short.

The *pronunciation* of the letters is that given under 'power.' It will be seen that the vowels are employed rather with the Continental than the English sounds.

Judging from modern pronunciation in India the Sanskrit *a* seems to have had the sound of *u* in *but* or *u* in the second syllable of *readable* In pronouncing the aspirates it will be seen by the examples that the aspiration (*h*) must be sounded separately from the mutes after which it is written I have not attempted to supply examples of the pronunciation of the fourth class of consonants because the sound of them is so utterly different from anything in our own language that it seems impossible to convey a notion of it by written characters The peculiar modification of sound is produced by bending the tongue upwards and as far back as possible A hollow sound is then produced which seems as if it proceeded from the upper part of the head The letters are therefore in Sanskrit grammars called *murdha iya* (capitalis) from *murdhan* head By Bopp the term cerebral is employed as being of similar meaning

19 It is supposed that the palatal consonants *ch j* acquired the sounds thus indicated at a later period and that there intervened between the pure guttural pronunciation *k g* from which they sprang and the palatal pronunciation such sounds as those of *k* and *g* in the English words *l in l guard* that is *ly* and *gy* See Schleicher *Compendium* pp 13 14

b) THE ZEND ALPHABET.

20. The Zend Alphabet consists of the following characters:

Form.	Characters employed in the following pages	Power	Example.
ᴊ	a	a	hâd
ᴊᴊ	â	â	fâr
Ɛ	è	è	après (Fr.)
ç	'ê	è	très (Fr.)
ᴫ	ê	â	mâde
ᴅ	ı	i	hıd
ᴅ	î	ê (ee)	heed
˃	u	oo	hood
ᴊ	û	ôo	food
ᴊ	o	o	hod
ᴊ	ô	ô	bôde
ᴊ	k	k	bake
ᴊ	kh	kh	bakehouse
ᴊ	qh	qh	———
ᴊ	g	g	log
ᴊ	gh	gh	loghouse
ᴊ	ng	ng	ring
ᴊ	ch	ch	reach
ᴊ	j	j	judge
ᴊ	t	t	right
ᴊ	th	th	right hand
ᴊ	d	d	red
ᴊ	dh	dh	red hand

Form	Characters employed in the following pages	Power	Example.
J	n	n	then
ꝺ	p	p	loop
ꝺ	f	f	roof
ꞇ	b	b	job
ꝼ	m	m	room
ꞇ initial / medial	y	y	yea
ꞁ	r	r	ray
ꞁ initial / medial	w	w	way
ꞇ after *th*	w, v	w, v	way, vane
ꞇ	z	z	haze
ꝡ / *ꝺ*	z	z (s)	pleasure
ꝡ	sh	sh	shed
ꝩ	s	s	said
ꝡ	h	h	head
ꝏ	ḍ	ḍ, dh (th)	then

Remarks.

qh represents a deep guttural sound, somewhat rougher than the German *ch*. Of the two characters for *ng*, the second is only employed after *i* or *ê*.

Further remarks upon the Zend alphabet will be found in III.

c) THE GREEK ALPHABET.

21. The Greek Alphabet consists of the following characters:

Large	Small	Power	Example
A	α	a â	had, made
B	β	b	bad
Γ	γ	g	gate
Δ	δ	d	red
E	ε	e	led
Z	ζ	z	haze
H	η	ê	hêre
Θ	ϑ	th	thin
I	ι	i î	hid, hide
K	κ	k	take
Λ	λ	l	lay
M	μ	m	room
N	ν	n, ng	then, ring
Ξ	ξ	x (ks)	box
O	o	o	hod
Π	π	p	loop
P	ρ	r	ray
Σ	σ ς	s	said
T	τ	t	right
Υ	υ	u, û	bud, bude
Φ	φ	f	roof
X	χ	k (kh)	take
Ψ	ψ	ps	lips
Ω	ω	ô	abode

d) THE LATIN ALPHABET

22. The Latin Alphabet consists of the following characters

Large   A B C D E F G H I J K L M N O P Q R S T U V X Y Z

Small   a b c d e f g h i j k l m n o p q r s t u v x y z

23   They are pronounced by us as in the English language   It must however be borne in mind that the Romans probably uttered the vowels with the Continental and not the English sounds of those letters   *j* represents the half vowel *y* and was doubtless pronounced like *y* in *yea* whereas the Latin *j* being in fact the Greek *v* is always a vowel and was probably pronounced something like the French *u* in *une*   The Latin *u* in some positions stands for the half vowel *u* as for instance in sanguis where it is pronounced just as in the English word sanguine   In *c* and *g* only the sounds in *cot* and *got* should be employed for the examples adduced in the following pages   The soft sounds of these consonants were of later introduction and are of less service for the purpose of comparison with the other languages here treated of

e) THE GOTHIC ALPHABET

24. The Gothic Alphabet consists of the following characters

Form	Power	Example
𝝠	a	had
𝗕	b	bad
Γ		log

Form.	Power	Example
d	d	red
є	â	mâde
ϝ	f	roof
ᵹ	j, y	judge, yea
h	h	head
ï ɪ	i	hid
ei	ee	heed
K	k	bake
λ	l	lay
M	m	room
N	n	then
Χ	ô	bôde
π	p	loop
⊙	hw	when (hwen)
R	r	ray
s	s	said
T	t	right
ψ	th	then, thin
n	u	hood
u	cw	quantity (cwantity)
ν	w	way
Χ	kh (ch)	(ger.) lachen
z	z	haze
λι	e â	led, mâde
λn	o ô	hod, bôde
гг	(gg) ng	ring

Remarks

25 The characters employed are the same as those which express the powers of the letters in the above table except that *y* is represented by *ȝ w* by *v* and *ee* by *i* or *ei* The same character was probably pro nounced *w* in some instances and *v* in others

26 The pronunciation of the Anglo Saxon letters especially of the vowels is very uncertain but the following list is sufficient for comparing the grammatical forms and roots with other languages

f) THE ANGLO SAXON ALPHABET

27 The Anglo Saxon Alphabet consists of the fol lowing characters

F rm	P	E pl
A	a	had
B	b	bad
Ⱡ	ch	chide
D	d	red
Ɇ	e	red
F	f	roof
Ᵹ	j	judge
Þ	h	head
I	i	hid
Ƙ	k	work
L	l	lay
Ꟁ	m	room
N	n	then
O	o	hod

Form.	Power	Example.
Þ	p	loop
R	r	ray
S	s	said
T	t	right
Ð	dh (th)	then
þ	th	thin
U	oo	hood
þ	w	way
X	x	box
Y	y	yea
Z	z	haze

III SOUNDS

28 The articulate *sounds* which can be produced by the human voice are very numerous and merge one in the other by almost imperceptible degrees   In the original construction however of the Indo European languages only a limited number of these sounds were employed and they are such as are clearly distinguish able from one another   The system on which they are arranged is remarkably simple and they may be traced with surprising distinctness through a great variety of languages during a period of more than three thousand years

29 On comparing the Alphabets now in use with those of the oldest Indo European languages we find that the vowels have undergone greater modifications than the consonant   They are of a feebler construc tion and less able to resist the violence of impetuous utterance or overcome the hindrance occasioned by climate etc in the organs of spee h   Hence in some countries they preserve a free open sound but in others are compressed and indistinct   In one language they are few and simple in another numerous and difficult to distinguish

There was probably at first only one vowel *sound* and this being considered the natural accompaniment of the consonant had no written character assigned to it   Before writing came into use it doubtles acquired

some variety of pronunciation, and as speech came to
be fixed in written forms, it was increasingly found
necessary to adopt a corresponding variety of characters
to represent these modifications in the vowel sound.
In course of time more complex sounds were formed by
combining and contracting together the simpler ones
already in use.

30. The original vowel sound is that represented by
a in *had*. In organic formation it corresponds to the
guttural consonants, being a simple sound emitted from
the throat. The first modification to which it was sub-
ject was probably the development of *i* as in *hid*, which
corresponds in organic formation to the dental con-
sonants. There was then produced *u*, sounded as *oo* in
hood, which corresponds in organic formation to the
labial consonants.

31. These three sounds we find represented in ancient
as well as modern alphabets. The sounds, however,
represented in different languages by the same letter,
are not identical. The *a*, for instance, has a perceptible
difference in German, Italian, and English pronun-
ciation. This has probably resulted from varieties of
social habits, climate, etc., after the various races had
separated. New modifications afterwards arose, which
must be considered in connection with the individual
alphabets.

1. SANSKRIT.

a) VOWELS.

32. In *Sanskrit* the original vowel *a* combines with
the derived ones *i* and *u*, making with the former *é*, as
in *neigh*, and, with the latter, *ó*, as in *nó*.

These, as simple sounds, are still represented in the
French language by the original letters, *ai* and *au*, as

in *mais mauc* whilst their originally diphthongal character is indicated not only by this circumstance but also by the fact that in Greek they appear not as ε and o nor as η and ω but as ει and ευ or as οι and ου

By prefixing another *a* to *e* and *o* the diphthongs *ai* and *au* are formed having the vowels *a i a u* pronounced separately with the principal stress on the first vowel and resembling *i* and *ou* in *hide* and *loud*

The short vowels *e* and *o* seem not to have been part of the primitive alphabet but to be later modifications of the original sound for they are wanting alike in the Sanskrit and Gothic alphabets and appear in Greek and Latin as representatives of the Sanskrit *a*　For example

Snkt *ásht*	G k o	Lat	*to*	e ght
á		ε	o m	e
na as		oç		new

33　The following three characters also occur in Sanskrit　1 *Anuswara* It is represented by a point over the preceding letter and is pronounced like the final *n* in French　At the end of a word it stands in place of an original *m* and in the middle of words in place of an original *n* before sibilants e g *ta sunum* for *tam sunum* the son　*hasa* for *hansa* goose　² *Anunasika* It is represented by a point over a curve above the preceding letter and denotes that a final nasal has been assimilated to *l y* or *u* at the beginning of the following word e g *pakshal lunati* for *pakshan lunati* cuts off the wings *　The Lithuanian and Old Slavic retain the sign of a nasal in the preceding vowel the former without the latter with the corresponding sound　3 *Visarga* It is represented by two points at

* Bopp *K t h G m* 2nd ed 66 70

the end of a word, and stands in place of final *s* or *r*, which then is pronounced as a soft aspiration, e g. *puna*: for *punar*, 'again;' *dū:kha* for *duskha*, 'pain.'

The modifications of sound represented by these three characters are euphonic, and are generally occasioned by the consonants which follow them.

34. r and ḷ, as vowel sounds, seem to have grown out of the syllables *ar* and *al* (cf. Greek *ă-φερτος* with Sanskrit *bhṛtas*, and Latin **art** for *cart* with Sanskrit *kṛtis*). ḷ occurs only in one root, *klp* for *kalp*.

35. We may here introduce a reference to the COM-PARATIVE WEIGHT OF VOWEL SOUNDS. In his second edition Bopp has given a detailed account and fuller illustrations of this subject.

Of the original vowels *a* is the heaviest, *i* the lightest, and *u* intermediate. The principle on which this point is determined is that 'when a preceding or following syllable, on account of its own weight, requires the one next to it to be lightened, the vowel introduced for this purpose is considered lighter than the one for which it is substituted. For instance, the termination of the first person plural in verbs, *-mas*, is heavier than the termination of the first person singular, *-mi*; therefore the syllable preceding the former must be lighter than the syllable preceding the latter. Now the last syllable but one in *yunā'mi,* 'I bind,' contains *ā*, whilst the corresponding syllable in *yunī'mas* contains *ī*. Hence *ī* is lighter than *ā*. Similarly, in *ê'mi*, ' I go,' and *ímas*, ' we go,' *i* is lighter than *ê*; in *εἶμι* and *ἴμεν*, *ι* is lighter than *ει*. A similar result is occasioned in Latin by prefixing prepositions, or by reduplication. Thus, *jacio*, 'I throw,' becomes *abjicio*, 'I throw off,' and *cano*, 'I sing,' becomes *cecini*, 'I sang.' *i* is therefore lighter than *a*. The concurrence of two consonants has the

effect of partly (*abjectus* thrown off) or wholly (*con-tactus* touched) preventing the lighten ng of the root vowel The same phenomenon appears in the past and present tenses in the strong verbs of the Germanic languages In Gothic the *heavier* terminations of the present tense are affixed to the *lighter* stem as *sit* whilst the *lighter* terminations of the past tense are connected with the *heavier* stem *sat* In English where the inflections which originally caused the difference have disappeared the distinction itself is retained as in *sit sat* Another illustration is derived from a com parison of older and later forms of languages The effect of time is to render grammatical forms lighter and easier of enunciation Hence the older Sanskrit *a* (*dadami* I give) becomes *i* in the later Greek (δίδωμι) We have *a* in the older Sanskrit *chatwa ? us* four and *i* in the later Greek πισυρες and Gothic *fidvor* The Latin *quatuor* is in this respect of an older character than the Greek From similar facts it is inferred that *u* is lighter than *a* e g s *karomi* I make *kurmas* we make l *calco* I tread upon and *conculco* I crush e *came* and *come* In this last word the older pronunciation ha now become pro vincial *Coom* has changed to *cum* for in *come* though *o* is written the *u* sound is preserved For older s *naktam* night we have later gr νυκτα That *i* is lighter than *u* appears from such cases as s *aundidam* a later form for *avndudam* and l *fructifer* bearing fruit for *fructufer*

b) CONSONANTS

36 Sanskrit grammarians arrange the consonants in *five classes* an arrangement which it will be convenient

to follow here, though we shall afterwards see that a more accurate division for the purposes of Comparative Grammar would be into *three principal* and *two subordinate* classes. There are also four half-vowels, three sibilants, and *h*. This arrangement is determined by the organs used in pronunciation. Each of the Five Classes contains five letters—a mute, a vocal, the corresponding aspirate of each, and a nasal. In the aspirates the aspiration is pronounced distinctly from the letter to which it belongs; e.g. the aspirated *p* is pronounced as *ph* in *haphazard,* and the aspirated *b* as *bh* in *abhor.* The later substitution of a single sound and character, as *f* and *v*, is analogous to the change of the diphthongs *a + i* and *a + u* to ê and ô.

37. The *first* class of consonants, the GUTTURALS, contains the letters *k, kh, g, gh, ng.* They occur in most of the cognate languages with great regularity, and require little elucidation. The aspirates, however, especially *kh,* are rare. Yet the following examples are met with:

'nail'	s. *nakha*	gr. ὀνυχ-	l ———
'light'	*laghús*	ἐλιχύς	*levis*
'warm'	g*harmás*	θέρμη	(uro)

In the last example there is a change of aspirates, the Dental θ (for *dh*) being used in Greek for the Guttural *gh* in Sanskrit. That the Guttural was the original appears likely from the evidences of it in other languages. In Latin, although the Guttural is lost from *uro,* as it is in many other Latin words, yet the *u* indicates its previous presence. The same may be said of the *w* in the Germanic languages, e.g. go. **var***m,* a. s. **wear***m,* e. **warm,** ger. **warm.** For these letters are

E

usually developed from a Guttural, e. g. s. *ka-s*, l. *qui*, e. *who* (for hwo). In the second example above there is another variation of aspirates, *v* (for *bh*) being used in the Latin for the Sanskrit *gh*. Indeed, we shall find that such variations in the aspirates are not unfrequent.

38. The *second* class, the PALATALS, contains the letters *ch, chh, j, jh, ñ*. A modification in the sound is produced by pressing the tongue against the palate, whence the class obtains its name. These letters are derived from the first class, and are used only before vowels, half-vowels, and nasals. They were probably originated after the separation of languages, which would account for their being entirely absent from some alphabets. The following examples illustrate their absence from the Greek and Latin alphabets :

| 'four' | s. *chatwâras* | gr. πίσυρες | l. *quatuor* |
| 'cut' | *chhid* | σχίζω | *scindo* |

Instances illustrating the use of these letters can therefore be found in only a small number of languages. They serve, however, to exemplify the development of sounds one from another ; and analogous phenomena, independently produced, may be seen in the Slavic languages, as well as in the Romance languages as compared with the Latin.

In the first of the examples given above, the Greek πίσυρες has the Labial π for the original Guttural out of which the Sanskrit Palatal has been developed, and which, with the usual development of *u*, is preserved in the Latin *quatuor*. This deviation from the original form is common in Greek, and sometimes distinguishes one dialect from another, e. g. Ionic κότερος, 'which,' and Attic πότερος. Letters from all the three organs

• are in different cases employed in the Greek language to represent the original Guttural sounds, for the Dental τ appears in Attic τέσσαρες for the above Æolic πίσυρες. In the second example the Guttural is not aspirated in Latin, and in both Greek and Latin an initial s appears, which may have been originally in Sanskrit.

39. The *third* class, the DENTALS, contains the letters *t, th, d, dh, n*. The *dh* is represented in Greek by θ, whilst *th* appears as τ, from which it is probable that θ represents the former as well as the latter *sound*. The Latin sometimes omits the aspiration, and sometimes substitutes the aspirated letters of other organs. These letters are often inserted inorganically in Greek after similar letters of another class, e. g. πτόλις for πόλις, and χθές for χες. Instead of *d* in Sanskrit, we often find in other languages *l* or *r*.

Examples:

s **dh**ûmás	gr. θυμός	l fumus	'smoke'
madhya	——	{ medius	'middle'
		{ meridies	'mid-day'
purî	πτόλις	——	'city'
hyas	χθές	heri	'yesterday'
dah	λιγνύς	lignum	'firewood'

40. The *fourth* class, the CEREBRALS, contains the letters *t, th, d, dh, n*. They are derived from the Dentals, and are similar in sound, except that in pronouncing them the tongue touches the roof of the mouth, pointing perpendicularly towards the brain, from which they take their name. They seldom begin a word, *n* never; and they rarely appear in the cognate languages. They are substituted for Dentals after *sh*, and are very common in Prâcrit, probably as the result of local influences.

41 The *fifth* class the LABIALS contains the letters
p ph b bh m ph rarely occurs   *bh* is represented in
Greek by φ or β and in Latin by *f* or *b*   The Greek
φ may have represented both aspirates in sound   Final
m generally becomes *Anuswa a* in Sanskrit i preserved
unchanged in Latin and appears as ν in Greek   in
Gothic it is sometimes *m* and sometimes *n*

Examples

s **ph** *a*	gr ——	l ——	——
l **bh**	ᴧ β	——	——
p *h*	πf	*q q*	fi e
bh	φ ρ	**f** *ens*	bea
d w **m**	Ꙅ ν	*deuna*	god

As Labials are used in Greek for Sanskrit Gutturals
so we have the converse in the Latin *quinque* i e a
Guttural *qu* for a Sanskrit Labial *p*
   42 The HALF VOWELS are *y l i w* They are more
frequently interchanged with one another than the conso
nants and are therefore less easily traceable in the sister
languages   This is more especially the case with *l* and
i which correspond to the class of Dental consonants
and differ from each other only in the circumstance
that in pronouncing *l* the tongue touches the roof of
the mouth once only while it does so more than once
in pronouncing *i*   Hence only one of them is found in
some languages   *y* corresponds to the Guttural conso
nants in organic formation   In Pracrit it has become
j as it has also in the transition from Latin to Italian
e g in l *jugum* yoke the *j* answers to English *y* and
in it *giogo gi* answers to English *j*   In Greek it be
comes ζ or   or is assimilated to a preceding letter
w corresponds in organic formation to the Labial con

sonants. In Prâcrit it is often assimilated to a preceding consonant. In Sanskrit it seems to have become *v*, except after a consonant. In Greek it is either assimilated or changed to a vowel, or appears as ϕ (from the digamma), or is lost. In Latin it is changed to a vowel or is lost. It assumes the character of a mute Guttural in l. *victum, factum,* and in e. **quick**. The following list will serve to illustrate most of the above statements:

'shine'	s. *ruk*	gr. λευκός	l. *luceo*
'leave'	*rik*	λειπω	*linquo*
'another'	*anyás*	ἄλλος	*alius*
'join'	*yuj*	ζεύγνυμι	*jungo*
'liver'	*yákrt*	ἧπαρ	*jecur*
'four'	*chatwâ'ras*	τέσσαρες	*quatuor*
'horse'	*ázwa*	ἵππος	*equus*
'thou'	*twam*	τύ, σύ	*tu*
'his'	*swas*	σφός	*suus*
'sail'	*plávâmi*	πλέω (πλεϝω)	——
'sheep'	*ávis*	ὄις	*ovis*

43. The SIBILANTS are *ż, s, sh*. *ż* corresponds, in organic formation, to the Guttural consonants, and has, in fact, in almost all cases sprung from an original *k*. Hence it is generally represented by a Guttural in the sister languages. In Lithuanian, however, it appears as *sh*, and in Slavic as *s*. Its sound resembles that of *s* in the word *pleasure*. *s* corresponds, in organic formation, to the Dental consonants. It seldom remains unchanged at the end of a word. Final *s* following a word beginning with a vocal letter becomes *o*, probably through the changes *as, ar, au,* | *o*. Instead of this

letter we frequently find *r* in other languages.   *sh* corresponds in organic formation to the Labial consonants. It takes the place of *s* in certain cases where the latter is not admissible in Sanskrit.

44. *h* is a feeble aspirate. It appears in Greek as χ, and in Latin as *h*.   Sometimes it is only the aspiration of another letter which has been dropped, as **h**an for **dh**an.[1] The above statements are illustrated in the following list of words:

'dog'	s. *żwan*	gr. κύων	l. *canis*
'ten'	*dażan*	δέκα	*decem*
'right'	*dákshinas*	δεξιός	dexter
		for δεκσ͂ιος	for *dec-ster*
'winter'	**h**imám	χεῖμα	**h**iems
'kill'	**h**an-	ἐθανον	*funus*

In the Latin word *funus* the Labial aspirate *bh* (f) is used instead of the Dental aspirate *dh*.

45. The following table exhibits the relation of the letters in the Sanskrit alphabet.   The larger characters represent the three older classes, viz. Gutturals, Dentals, Labials; the smaller characters represent the two later derived classes, viz. Palatals and Cerebrals.

	Mute	Vocal	Nasal.	Half-vowels.	Sibilants	Vowels
Gutturals	k kh	g gh	ng	y	ż	ă
Palatals	ch chh	j jh	ṅ	—	(h)	ê ai
Dentals	t- th	d dh	n	l ı	s	ĭ
Cerebrals	t th	d dh	n	l ṛ		ô au
Labials	p ph	b bh	m	w	sh	ŭ

2. ZEND.

46. The *Zend* has a close relation to the Sanskrit.
and from its grammatical forms, as well as from remains
of the two subordinate classes of consonants, it may be
supposed to have been separated from Sanskrit at a later
stage of development than was the case with Greek and
Latin.   The same conclusion is also supported by the
local proximity of the peoples by whom Sanskrit and
Zend were spoken.

a) VOWELS.

47. *a*, and in some cases, through the influence of
particular consonants, *è* (resembling the French *è* in
après), occupy the place of *a* in Sanskrit. *â, i, î, u, û,*
generally answer to the same letters in Sanskrit. Some-
times, however, *ô* occurs for Sanskrit *u*, as in *kèrènaôt*
for s. *akrnaut*, which is written *ákrnôt*. This form
probably arose when the original diphthong was pro-
nounced *a + u*, not *ô*.   The vowel *ô* or the diphthong
eu answers to the Sanskrit *ô*, *êu* having arisen probably
out of the original *au*.   Generally *âo*, but sometimes
also *âu*, stand in place of the Sanskrit *au*. Thus *gâus*
for s. *gaus*. Generally Sanskrit *é* is represented by *é*,
but by *ôi* after *y* or before final *s* or *d*, e. g. *yôi* for
s. *yé*, 'who.'   At the beginning and in the middle of
words the combination *aê* occurs, which Bopp regards
as containing a gunaed form of *i* in the original di-
phthong *ai*. Thus *a + ê* would be for *a + a + i*, and this
instead of *a + i* or *ê*.   The sound, however, remains the
same as that of the original diphthong.   Thus there
occur in the same word *rathwê* and *rathwaêcha*.

b) CONSONANTS

48 Of the GUTTURALS Sanskrit *k* remains *k* before vowels and *ι* but becomes *kh* in other cases Sans *l h* remains unchanged *qh* is in sound nearly the same as *kh* but of different origin It has grown out of *qw* and answers to Sans *sι*ᴍ e g **qh**a *dhata* = s **sw**a *dhata* self made **qh**af ιa = s **sw**apna sleep *g* and *gh* correspond to the same Sanskrit letters

49 The PALATALS have in some cases become sibilants but there remain the two unaspirated Palatals *ch* and *j*

50 The DENTALS are *t th d dh* and correspond to the Sanskrit letters of the same organ *t* however sometimes stands in place of Sans *h* or *th* e g *st*a for s *sth*a *ishta* for s *ishth*a The aspiration in such cases seems to be prevented by the preceding sibilant At the beginning of words *d* sometimes stands for s *dh* e g **d**a for s **dh**a gr ᴣη

51 Sanskrit CEREBRALS are represented by Dentals in Zend On the other hand *d* is used for Sans *t* at the end of words and before case endings beginning with *b*

52 The LABIAL *p* corresponds to Sans *p* except that when immediately followed by *ι s* or *n* it becomes *f* e g **f** a for s **p**ιa gr τρο *f* corresponds in other cases to Sans *ph* and *b* to Sans *b*

53 The HALF VOWELS are *y r u* *y* is represented by the three characters given in the table of which the last shows by its form that it has arisen out of the vowel *ι* *y* and *ι* as well as *e* have an assimilating power which causes the insertion of an additional *ι* in the preceding syllable e g *ma*ι*dhya* = s *madhya* middle *tu*ιι*ya* = s *tu ι ya* fourth The combina

tion of two consonants, however (except *nt*), and sometimes a single consonant, prevents this assimilation from taking place. Hence we have *asti* and not *aizti* for s. *asti*, 'is.' Bopp also ascribes a like assimilating power to *y* over a *succeeding* syllable, in changing *a* to *é* (= *ai*). In all the cases adduced, however, there is an *i* in the syllable which follows the *é*, and this will account for the change without introducing any new principle.

54. *r* is usually followed by *è*, in order to separate it from other consonants, e.g. *dadarèza* for s. *dádarza*, gr. δέδορκα, ' I saw.'

55. *w* is represented by three characters, as in the table. Of these the first occurs only at the beginning, and the second only in the middle of words, e. g. ςⴰⴰⴰⴰ *waêm* for s. **w**ayam, 'we ;' ⴰⴰⴰⴰ *tawa* for s. *tava*, ' of thee.' The form of the second shows that it originated from the vowel *u*, being, like the English letter, a 'double *u*.' The third character occurs after *th*, and sometimes after *dh*. Bopp puts all three together under the designation of Half-vowels, but represents the first two by *v*, and the last by *w*. Now *v* is not in any sense a half-vowel, any more than *f*, *v* having the same relation to *b*, both in origin and sound, as *f* has to *p*. The combinations, also, which are given of the last character, with *y* and *r*, in *wyo*, *wra*, *aiwyó*, 'aquis,' *żuwrâ*, 'sword,' supposing the first letter = e. *w*, if not phonetically impossible, at least are strange. These terminations correspond to the s. *bhyas* and *bhra*, and would therefore be more correctly represented by *vyo* and *vra*, seeing that *v* is the aspirated *b*, just as *f* is the aspirated *p*. We should be inclined to follow Rask in giving the sound *w* to the first two characters ; while the difference between Rask and Anquetil in regard to

the last — the one assigning to it the sound *w* and the other the sound *v* — would lead us to the conclu ion that it had either the one or the other sound according as it arose from a consonant or a vowel *w* and *u* like *y* and *ı* have an assimilating power over the preceding syllable e σ *haurva* = s *sa va* whole

56 *y ı w m n* and the sibilants cause a mute before them to become a ı aspirate e g *mereṭhya ughıa l arethwa ım takhma pathnı* correspond to the Sanskrit *ırtyı ug a has twam tank patnı*

57 The SIBILANTS are *z sh ẓ s* has the two characters given in the table which differ little in sound but are not of the same origin The *fıı t* answers generally to the Sanskrit *z* In some cases however it stands in place of Sanskrit *s* e g *ztaı o* for s *staras* stars It has the effect of changing *u* immediately after it to *p* e g *zpa* = s *zwan* gr *κυων* dog (hound) The *second* character for answers to Sanskrit *y* and *ȷ* (a Latin *y* becomes *ȷ* (*z*) in French— Lat *ȷocus* Fr *ȷeu*) e g *yuzem* = s *yuyam* you *zenu* = s *ȷanu* knee

sh is represented by two characters which however a e of the same origin The second is used before vowels and the half vowels *y w* They both answer to Sanskrit *sh* e g *ashta* = s *ashta* eight *aıtaıshwa* = s *ete shu* in these

z answers etymologically to Sanskrit *h* e g *azem* = s *aham* gr *εγων* I In some cases it stands in place of Sanskrit *ȷ* e g *yaz* = s *yaȷ* worship and in a few cases for Sanskrit *g* e g *zao* = s *gaus* gr *γη* earth

58 *h* answers etymologically to Sanskrit *s* e g *ha* = s *sa* gr *η* she *n* is prefixed to *hr* for s *sı* *nhr* = s *sı*

59 The NASALS are numerous *ng* has two charac

ters, of which the second is evidently only a modification of the first; and is used only after *é* or *i*. They answer to Sanskrit *ng*, e.g. *yénghé*, 'who;' *angháo*, 'of this.' *n* has two characters, of which the second is used before strong consonants. They correspond to Sanskrit *n*. *m* also is the same as the Sanskrit letter. *n* is represented in two characters, of which the second = *an*.

60. The Zend Alphabet, as compared with the Sanskrit, has already sustained considerable loss. The Cerebrals are entirely wanting except *d*, which, however, answers to Sanskrit Dentals and not Cerebrals. There are no Palatal aspirates. *bh* and *l* are also missing. On the other hand, the sibilants and diphthongs are more numerous than in Sanskrit.

61. The following table exhibits the Zend Alphabet :

	Mute	Vocal	Nasal	Half-vowels	Sibilants	Vowels
Gutturals	k kh (qh)	g gh	ng	y	z	ă
Palatals	ch —	j —	ń	—	z	ĕ ê ăi
Dentals	t th	d dh	n	r	s	ĭ
Cerebrals	— —	d —	—	—	—	ô ău âo ôi
Labials	p f	b —	m	w	sh	ŭ

3. GREEK.

62. The following list of *Greek* letters consists mainly of what was called the Cadmus Alphabet, traditionally derived from Phœnicia.

The aspirates were at first represented by the unaspirated letters. χ, ϑ, φ, however, are found on the earliest monuments. There appears to be no aspirated κ or τ, unless, like the English *th*, χ and ϑ represent two sounds each. The two subordinate classes of Sanskrit consonants are altogether wanting. The long vowels η and ω, which usually answer to the Sanskrit *á*,

were represented by ε and ο The formation of the diphthongs is easily understood As ε ο stand for Sanskrit α so ει οι answer to αι and ευ ου to αυ which in Sanskrit appear as e ο Similarly αι αυ being formed of ααι ααυ correspond to Sanskrit αι αυ The improper diphthongs introduce no new elementary sound ξ and ψ are merely later inventions used in place of mutes combined with a Sibilant ξ for κσ which represents κ γ or χ followed by σ and ψ for πσ which represents π β or φ followed by σ ζ is in some cases used for σδ as in Αθηναζε for Αθηνασδε in other cases it was probably a simple sound similar to the English z and was produced by the combination of y (in Gr ι) with a preceding Guttural as in Ionic μεζων Attic με ζων greater for μεγιων But it seems never to be used for τσ (δσ θσ) The Dental is dropped before σ instead of being combined with it τριβω I rub forms τριψω in the future but σπευδω I hasten forms σπευσω

63 Six consonants are wanting in the three classes of the Greek as compared with the Sanskrit viz Gutturals kh y Dental th Labials w sh The u however may have been represented by ου in ουαι = go ϝαι e ϝοe

	M	V l	Nasal	H lf	l	S b lan	V l
Guttu als	κ (χ)	γ χ	γ	(ι)		— (h)	α η ε
							ει οι
							αι
Dentals	τ (θ)	δ θ	ν	λ ρ		σ	ῐ
							ευ ου
							αυ
Lab als	π φ	β (ϝ)	μ	—		—	υ ωο

4. LATIN.

64. In the *Latin* Alphabet there are no Palatal or Cerebral letters. It is also very deficient in aspirates. *c* and *q* are identical in origin. They occur in different words where the Sanskrit has but one and the same letter (*k*). There is no distinct character for the Guttural nasal (*ng*), though the sound may have occurred in such words as *concors.* Compare also *concha* with the gr. κόγχη. The Labial half-vowel is not represented, though it may have been heard in such words as *sanguis.* The English character ('double *u* ') *w* is nothing more than *u* (v) written twice. There is but one sibilant character. It may, however, have represented different sounds, as the English *s* represents three in *pleasure, soon, sure.* The vowels and diphthongs are nearly the same as in Sanskrit and Greek. The *i*, however, of *ai, oi* (gr. ει, οι) is represented by *e* in *ae, oe.* *x* is merely a compound letter substituted for *cs* etc.

65. Final *d* often appears in place of *t,* and *b* for *p,* e. g. the old Ablative *facillumed* etc., as compared with the Sanskrit Abl. in -*t,* the preposition *pród* in several compounds, e. g. *pród-eo* etc., compared with the s. *práti,* gr. προτί, e. *forth,* and *ab* compared with s. *ápa,* gr. ἀπό, e. *off.* Probably the Latin language was averse to final mutes. In Greek, when the final vowel was dropped from προτί, τ was changed to *s* in προς. Possibly the final *b* and *d* in these cases in Latin were pronounced *p* and *t,* as is done in the German language.

66. There are eight of the Sanskrit consonant characters wanting, viz.: Gutturals, *kh, gh, ng, z*; Dentals, *th, dh*; Labials, *w, sh.*

	M	V l	↘ l H lf w l	S b l t	V
Gutt r ls	c q	—	( )	( )	(e) e
				h	
					ae oe
Dent ls	t ⌐	d —	n	l	s
					au eu
Lab ls	p	b v	m	(u)	( )	( )

ꞓ GOTHIC

67 The examples to be obtained from the Gothic are
not very numerous because the r mains of that lan
guaꞡe are almost confined o fragments of one book
and to one period of history   What there is however
possesses great value from its presenting an interme
diate step between the oldest languages and the High
German with regard to the change of consonants   At
the same time it has a peculiar interest from being
closely connected with the Low German dialects and
the English language

a) VOWELS

68 Sanskrit a is generally represented by a but
sometimes especially before final s in polysyllables and
frequently before *th* we find *i*   Sometimes this vowel
is dropped e g *wulfis* wolf s for s *vrkasya wulfs*
  wolf for s *vrkas bairith* beareth for s *bharati*
but *magath* maid   Sanskrit a becomes o or e   The
former is more general and this again by abbreviation
becomes a e g *airthos* earth s *airtha* earth Final
o however remains where a consonant has been dropped
e g *whathio* o   from whence answering to the Sans

ʼkrit Ablative which ends in -át; airthrô Gen. Pl., which
in Sanskrit ends in ám. When a syllable requires to
be lengthened, a becomes ô, e. g. fidurdôgs, 'every
four days,' from daga, 'day.' The contraction of a + a
or of a + ô also produces ô. We have an instance of é
for á in slêpa, 'I sleep,' for s. swá'payámi.

Sanskrit i and í are respectively represented by i and
ei (= í), e. g. viduvôn, 'widow,' for s. vidavá; bairan-
dein, 'bearer,' for s. bháranti. Final i is suppressed
except when it stands for ja, e. g. im, 'am,' for s.
ásmi; ufar, 'over,' for s. upári; but hari, 'army,' from
harja.

Sanskrit u and ú are represented by u without any
distinction in Gothic. u is often preceded by the guna
vowel i, e. g. tiuha, 'I draw,' l. dûco.

Sanskrit é, ô, formed from ai, au, are represented by
ai, au, e. g. bait, 'bit,' for s. bibhê'da; baug, 'bent,'
for s. bubhô'ja.

69. h and r cause a to be prefixed to a preceding i or
u, e. g. tauhum, 'we drew,' for s. duduhimá; daur,
'door,' for s. dwá'ra; getaihum, 'we told,' for s. didizi-
má; aihtrô, 'I beg,' connected with s. ichh. A similar
phenomenon appears in Latin. Thus we have peperi
(e approaching to the value of a + i) where we might
have expected pepiri like cecini. The connecting vowel
also in the third conjugation is e before r, but i in other
cases, e. g. veheris, velis. And though a preposition
generally causes the Sanskrit root-vowel a to become i,
yet before h and r we have e in adveho, affero.

b) CONSONANTS.

70. The GUTTURALS are k, q, h, g, ng. k and q are
equal in phonetic value, and correspond to Sanskrit g,
whilst h and g correspond respectively to Sanskrit k and

gh e g **qvuα** living quick for s Jιv where *ɟ* is for an original *g* **hv**ɑ*s* who for s **k**α*s* g*αɪds* yard for Latin **h**o*ɪtus* g*ɪstɪα* yesterday for gr χϑ*s* l **h**e*steɪnʉs* **h**e*ɪɪ* The nasal in imitation of the Greek is written *g* before Gutturals e g *tuggo* tongue *juggs* youn◌ The half vowel (*w*) *v* which appears after all the Gutturals viz *qv hv gv* sometimes answers to the sam◌ letter in the older lan ◌ua◌es as in **hv**e*ɪtα* white s **zw**e*tα* for *kuɑɪtα* In other cases it was perhaps developed after the lan gua◌es had become distinct A similar process seems to have taken place in Latin — **hv**α who l **qu***ι* In many instances the original Guttural is dropped as in **v**u*rm* worm l **v**e*rmɪs* The half vowel when thus left alone is pronounced as the consonant *v* in some languages the German for instance In English *who* (for *hwo*) the order of the letters is inverted in writing though not in pronunciation

71 The DENTALS are *t th d n* corresponding seve rally to Sanskrit *d t dh n* e g **t**α*gr* tear for gr δακρυ **th**α*n* then for l **t**u*nc* **d**αu*ɪ* door for gr ϑυρα **n**α*mo* name for l **n**o*men* Final *t* in the older languages is dropped in Gothic as it is also in Greek e g *baɪɪαɪ* he may bear gr φεροι for s *bhɑɪ*e*t* but where *t* was originally followed by a vowel *th* is preserved in go e g *baɪɪ*ï**th** he bears for s *bhɑɪ*α**t**ι

72 The LABIALS are *p f b m* answering severally to the Sanskrit *b p bh m* e g *thoɪ***p** thorp for l *tuɪ***b**α crowd *fulls* full for gι πλεος **b**αɪ*ran* bear for gr φερειν **m**ι*hιls* great for gι μεγας

73 The HALF VOWELS *ɟ* (pronounced as *y*) *l ɪ v* are frequently interchanged but their general correspond ence with the same letters in older languages is clearly

'established,: e. g. j*k, 'yoke,' for l. *jugum*,; le*iban*. 'leave,' for l. l*inquere*, gr. λείπειν; r*aihts*, 'right,' for l. r*ectus*; v*ai*, 'woe,' for gr. *oûai*.

74. The SIBILANTS are *s*, *z*. The latter is used in place of the former between vocal letters. Thus *mais*, 'more,' becomes *maiza*. This is a step in the progress from *s* to *r*, which takes place so extensively in Latin, and of which the English word compared with the Gothic furnishes a striking instance (i. e., in go. *mais*, *maiza*, e. *more*), e. g. s*ibun*, 'seven,' for s. s*aptan*; *thizé*, ' of these,' for s. té'sh*ân*. In this last word *s* is changed to *sh* by the preceding vowel.

75. The Gothic Alphabet, therefore, comprises the following letters :

	Mute	Vocal	Nasal.	Half-vowels	Sibilants.	Vowels
Gutturals	k h	g —	ng(g)	j	—	a
						ai ê
Dentals	t th	d —	n	l r	s z	i ei
						au ó
Labials	p f	b —	m	v	—	u

6. ANGLO-SAXON.

76. The Anglo-Saxon has a still nearer relation to the English than the Gothic has. It supplies also an abundant and valuable literature.

a) VOWELS.

The *vowel sounds* are very numerous, and their relation to the Gothic and Sanskrit vowels not easily defined and classified. Notwithstanding the labours of Grimm and Rask, much remains to be done before the relation of the Anglo-Saxon vowels to those of the older

F

language can be satisfactorily established The investigation as the former states must encounter no small difficulties

77 There are no less than seven short vowels *a œ e ı o u y* with their corresponding long ones besides several diphthongs   It is obvious that these must have resulted from a much wider and freer action than we have seen in the development of the vowels of the older languages   The variety of dialects in the Anglo Saxon literature also increses the difficulty of classifying its forms since they result not from one law but from different and conflicting tendencies   The vowels *a ı u* often correspond to the same in Gothic e g *fram* go *fram* from *dım* go *dım* dım *sum* go *sums* some but *ı* also in some cases takes the place of *a* e g *cıppan* shape for go *skapjaı* and sometimes that of *u* e g *cın* kind for go *ł unı* whilst *u* sometimes supplies the place of *ı* e g *suustor* sister go *sıster*   *œ* is a modification of *a* principally under the influence of inflection e g *wæı* wary go *ıaıs*   *e* occurs for *a* when *e* or *ı* has been dropped in the following syllable e g *heł* for *hele* go *hałı* hell   It also stands for *ı* e g *he* for go *hı* he   The fact that in Anglo Saxon *e* is thus written for an older *ı* is probably the reason that in English *e* is pronounced like a Continental *ı*   *o* stands for *u* or *a* e g *doł* dulness *cuom* came *y* is pronounced like French *u* and developed from *u* e g *cyn* as well as *cın* kind go *kunı* *a* originally a diphthong answers to Gothic *aı* e g *aı* age go *aıvs* l *ævum œ* stands for Gothic *aı* or *e* e g *sæ* sea go *saı* *e* also sometimes stands for Gothic *e* as *cuen* queen woman go *quens* *ı* stands in place of Gothic *eı* e g *swın* swine go *svein* *o* stands generally in

place of Gothic *ó*, e. g. *dôm*, ‘doom;’ go. *dôms*. *ú*, for Gothic *ú*, e. g. *rûm*, ‘room;’ go. *rûms*. For this latter *ŷ* is often substituted: *cŷ* for *cû*, ‘cows.’

b) CONSONANTS.

78. The GUTTURALS are *c*, *h*, *g*, *ng*, which correspond to Gothic *k*, *h*, *g*, *ng*, and to Sanskrit *g*, *k*, *gh*, *ng*, e. g. *cwic*, go. *qvius*, ‘living,’ ‘quick;’ **h***wæt*, go. **h***vat*, ‘what;’ *geard*, go. *gards*, ‘yard.’

79. The DENTALS are *t*, *th*, *d*, *dh*, *n*, answering to the same Gothic letters, and to Sanskrit *d*, *t*, *dh*, *n*, e. g. *tear*, go. *tagr*, ‘tear;’ **th***orn*, go. **th***aurns*, ‘thorn;’ *duru*, go. *daur*, ‘door;’ *nama*, go. *namô*, ‘name.’

80. The LABIALS are *p*, *f*, *b*, *m*, as in Gothic, and answer to Sanskrit *b*, *p*, *bh*, *m*, e. g. *thor***p**, go. *thaur***p**, ‘thorp,’ ‘village;’ *full*, go. *fulls*, ‘full;’ **b***erun*, go. **b***airan*, ‘bear;’ **m***ycel*, go. **m***ikils*, ‘great.’

81. The HALF-VOWELS are *e* or *g*, *l*, *r*, *w*, as *j*, *l*, *r*, *v* in Gothic. *e* and *g* are pronounced as *y* in certain cases, e. g. *geoc*, go. *juk*, ‘yoke;’ *lŷfan*, ‘allow,’ ‘leave;’ *riht*, ‘right;’ **w***â*, ‘woe.’

82. The only SIBILANTS are *s* (which is not, as in Gothic, softened between two vowels, but always preserves the hard sound, e. g. *seófon*, ‘seven;’ *thissa*, ‘of these’) and *z*.

83. The Anglo-Saxon Alphabet is as follows:

	Mute	Vocal	Nasal	Half-vowels	Sibilants	Vowels
Gutturals	k h	g —	ng ·	y	—	ǎ
						ĕ ǣ
Dentals	t th	d dh	n	l r	s z	ǐ
						ŏ
Labials	p f	b —	m	w	—	ŭ ў̆

The Guttural and Labial vocal aspirates (gh and bh) are wanting The sibilants are very defective but the vowels numerous

84 On comparing the above alphabets we obtain the following

The *Cerebral* consonants which are so distinctly and fully developed in Sanskrit do not appear at all in the other alphabets To a careful observer it is manifest that the Dental consonants out of which the Cerebials arose are pronounced differently in different positions in the living languages of Europe and although the alphabets of those languages have no characters to represent the distinction it is clear that in pronouncing those letters there is the same tendency as that which caused an entire class of consonants to be adopted in the Sanskrit alphabet

85 The *Palatals* have disappeared from Greek Latin Gothic and Anglo Saxon but in Zend and English there are ch and j The English Palatals however are not etymologically traceable to Sanskrit but are later and independent developments   They are in fact compound characters ch being equal to $t + sh$ and $j = d +$ French j In German z is a similar compound being equal to $t + s$

86 The Sanskrit alphabet contains ten *aspirates* Zend four besides gh and d Greek three Latin, two Gothic has three Anglo Saxon four and English and German three each It is possible that some of the characters represent two aspirates each, the mute and vocal as is the case with the English th But even if this be so the other alphabets are much less fully provided with aspirates than the Sanskrit

87. The *nasals* and *half-vowels* have suffered little diminution, though the Zend has no *l*, the Greek no *y*, and the German no *w*.

88. The Zend and English have each four *sibilants* : Sanskrit and German, three ; Greek, Gothic, and Anglo-Saxon, two ; and Latin only one.

89. The *vowels* are abundantly represented, and have acquired many new combinations in modern alphabets.

90. The survey which we have thus taken of the alphabets of some of the principal languages of the Indo-European family shows that the effect of change has not been to perfect, but to mutilate, the system of consonants, and not to simplify the vowels, but to render them more complex.   Both consonants and vowels in their earliest condition appear perfectly symmetrical. Those which are formed principally by the throat, the Gutturals, have exactly the same number, corresponding to them in all respects, formed in the centre of the mouth, the Dentals ; and analogous to both are those formed by the lips, the Labials.

91. The distinction between the three classes becomes more obvious if we follow the arrangement adopted by Lepsius, and founded upon the order of the letters in the Hebrew alphabet,— Guttural, Labial, Dental.   On pronouncing a letter from each organ in this order, the difference between them becomes more obvious, and the principle of arrangement more distinct.   No one can fail to recognise the organic relation of such a series of letters as the following, if the Consonants be pronounced with the sound of *a* in *had* before or after them: g, b, d ; k, p, t : ng, m, n ; y, w, l ; ż, sh, s ; a, u, i.

92. All the modern languages of this family, however cultivated the literature, and however civilised the

nation present only mutilated and fragmentary alph-
bets compared with what we find in use at the earliest
period and in immediate proximity to the primitive
abode from which the different tribes diverged The
Indo European family therefore did not begin with a
defective instrument of speech which required to be
filled up and polished by subsequent use in order to
attain its perfection The earliest is its most perfect
oim It appears to us at once in vigorous maturity
and fully equipped for the service which it has to per
orm This circumstance deserves consideration in en
deavouring to decide the much vexed question of the
o igin of language

THE TRANSMUTATION OF CONSONANTS

93 A remarkable modification of some of the con
sonants distinguishes three different divisions of the
Indo European languages We owe the discovery esta
bli hment and full illustration of this fact to Rask and
Grimm The variation thus brought to light is not
confined to a few isolated instances but affects the mass
of the languages It appears as a general law regulat
ing the development of later out of earlier languages

94 The terms *later* and *earlier* however in this con
nection are not used in a chronological sense for a lan
guage which is here said to belong to a later stage may
have existed and had a literature centuries before one
which belongs to an earlier stage If for instance A
and B be two languages which both have the same con
sonants in words etymologically the same— e g gr ζυγον
and l *jugum* which both have *g* in the middle of the
word— and if C and D be two other languages which
are like each other in this respect but both differ alike

from A and B—e. g. go. *juk* and e. *yoke*, which both have *k* in place of the *g* in the former languages — then C and D are in the second stage of development, and are later in this respect than A and B, though not in any sense derived from them. It does not, however, follow, because A' and B both belong to the first class of languages, that they were therefore both spoken and written contemporaneously; nor, because C and D both belong to the second class, that they were therefore both spoken and written at the same time; nor does it follow that A and B were spoken and written before C and D. So that this arrangement of languages has no necessary connection with the chronological order in which we find their literature. Still a language of the second division must have sprung from some language of the first division, and must therefore have come into use later than that particular language of the first division.

95. To the *first* of these three divisions belong the Sanskrit, Zend, Greek, Latin, as well as many others. To the *second* belong Gothic, Anglo-Saxon, and English, with several besides. The *third* division consists only of the High German.

96. This distinction has nothing to do with grammatical inflections; for Anglo-Saxon and English, though they belong to the same division, differ more widely in their grammatical forms than English and German, which belong to different divisions. The difference affects almost exclusively the lexicography of the languages — the consonants employed in the Roots and Stems of words. Thus, s. *pitŕ*, gr. πατήρ, l. *pater*, belong to the first division. They all have *p* at the beginning and *t* in the middle of the word. But go. *fadar*, a. s. *fader*, e. *father*, belong to the second division, all having *f* instead of *p* of the first division, whilst the first two

have *d* (possibly pronounced *dh*) and the last *th* (pro
nounced *dh*) for *t* of the first division   Again we have
s *twain* gi (Doric) τυ l *tu* in the first division   go
thu a s *thu* e *thou* of the second   and gei *du* of
the third   where *t th* and *d* respectively distinguish
the three divisions

97 This law does not however extend to all the
consonants   It has no influence upon the nasals half
vowels and sibilants but is confined to the mute and
vocal consonants with their aspirates   These in the
oldest alphabet were *l lh g gh   t th d dh   p ph
b bh*   The two series of aspirates have to be reduced
to one so that there will then be in each organ three
classes of consonants answering to the above division
of languages   Their relation to one another requires
that they should be arranged in the following order
Vocals *g d b* Mutes *l t p* Aspirates *gh lh dh th*
bh ph   Thus when a word has a Vocal consonant in
any of the first division of language   the same word
has a Mute in the second and an Aspirate in the third
Again if in the first division the word has a Mute
consonant it has an Aspirate in the second and a Vocal
in the third   And further if in the first division the
word has an Aspirate it has a Vocal in the second and
a Mute in the third   The order of succession is always
the same

98 Many words seem irreconcilable with this law
merely because the same sound is represented by dif
ferent characters in different languages e g *ph* in Sans
krit *f* in Latin and English *f* and *v* in German   It
must be remembered that these letters are identical as
far as the present law is concerned which has to do
with *sounds* and not with the characters in which they
are written   Another circumstance requires to be

,borne in mind, i. e. that, in their cultivated or 'classical' state, languages often contain an extensive admixture of heterogeneous elements. The modern High German contains many Low German forms, and oftentimes the same word fluctuates between the two systems. The intimate intercourse of the people, who, in the heart of Germany, spoke languages which belonged to two of the above divisions, and the influence of Luther and his contemporaries upon the popular literature, have indelibly stamped this mixed character upon the language of the country. Thus, for 1. *frater*, e. *brother*, we have ger. *bruder*, where the *b* is characteristic of Low German, and *d* of the High German. In old High German we find *pruodur*, where both consonants belong to the High German character. Again, for 1. *fui*, e. *be*, we have ger. *bin*, but in old High German *pim*.

99. The consonants, thus viewed, fall into nine series of three each, and each series of three represents the three divisions of languages, viz. G, K, GH; D, T, DH; B, P, BH, where words in the first division of languages have Vocal consonants;—K, GH, G; T, DH, D; P, BH, B, where words in languages of the first division have Mute consonants;—GH, G, K; DH, D, T; BH, B, P, where words in languages of the first division have Aspirates.

100. It may fairly be presumed that such was the original relation of these letters in the Indo-European languages. But long before these languages were fixed in writing, and before the documents were secured from which our illustrations must be derived, they had all undergone great changes. Language is of delicate construction and has nevertheless been exposed to all the vicissitudes which have affected the history of mankind.

in *trahere*, and the Dental aspirates are changed to Labial aspirates, e. g. Θυμός, fumus ; Θήρ, fera ; Θύρα, fores.

103. A singular fact is observable in German, which illustrates the dependence of the later upon the earlier classes of languages. When Dental or Labial aspirates occur, the mutes out of which they have arisen, and which characterise an earlier class of languages, are also preserved, e. g. *pfeffer*, *zehn* ($z = ts$), for English *pepper*, *ten*, where *p* and *t* of the second class are preserved, and *f* and *s* of the third added. Sometimes the preceding letter is assimilated, and the aspirate becomes doubled, e. g. *hoffen*, *hassen*, for English *hope*, *hate*, from *hopfen*, *hatsen*.

104. For a fuller discussion of this law, the reader is referred to Grimm, *Geschichte der Deutschen Sprache*, 4. pp. 392—434, 1st ed.

IV   ROOTS

105   The Latin word *dicitur* it is said is found on examination to consi t of several parts of different ori in It may be thus divided *dic i t u i* The letter *i* is in Latin distinctive of the Passive vo ce and the *u* by which it is here preceded is a connecting vowel which has no effect on the meaning of the word When these two letters are removed there remains *dicit* it says Again *t* expresses the Third Person Singular answering to the English pronoun he she or it and *i* is another connecting vowel When these are removed we have the monosyllable *dic* which is called the root of the word

106   All primitive verbs in the Indo European lan guages may be similarly reduced to monosyllabic *roots* These *roots* however have no meaning and as far as we know were never thus used in ordinary speech Such words as the Imperatives *dic fac* etc form no real exception seeing that this is not their original form but the result of abbreviation For the sake of rapid utterance the endings of the Imperative have been dropped and the words have retained the meanings which the terminations gave them The *roots* not having had such terminations have acquired no dis tinctive meaning and are therefore incapable of being used in such languages as those of the Indo European family

107. It has sometimes been assumed that before terminations were used the *roots* were placed one after another, as in Chinese, and acquired a meaning from their position. The system of affixes is supposed to be of a later date. No doubt modern languages of the Indo-European family tend towards the state of the Chinese. For instance, the phrases ' I have seen,' ' you have seen,' ' they have seen,' express three different meanings, not from any change in the terminations, but from the use of different words. In Latin, ' vidi,' ' vidistis,' ' viderunt,' by a mere change in the terminations of one word, express the same three meanings. We have historical proof, therefore, of a system of affixes changing to monosyllabic words. But within the range of the Indo-European family we have no historical evidence, and no literary remains, to show that languages once consisting of monosyllabic *roots* changed to a system of affixes. The oldest remains which we have of these languages exhibit them in the possession of grammatical forms, and the older the remains the more perfect are the terminations.

108. The fact that in these languages each *root* consists of one syllable has caused them to be called ' Monosyllabic,' in distinction from the Semitic languages, which are also inflected, but their roots, for the most part, consist of three consonants or two syllables. They are therefore called ' triliteral ' or ' dissyllabic.' The evidence as to whether or not these dissyllabic roots are derivatives from monosyllables, is not yet sufficient to prove that the two classes of languages do, or do not, in this respect, belong to one system.

109. There is a singular contrast between the grammatical system of the Indo-European and that of the Semitic languages, the one being dependent chiefly

upon *external* the other upon *internal* changes The modification of meaning in Semitic verbs is brought about chiefly by a change in the vowels between the root consonants Th variation of verbs in the Indo European languages results mainly from the syllables prefixed or added to the roots Hence the vowels are much more numerous and complex in the former than in the latter class of languages e g Arabic *latala* he killed *kutila* he was killed Hebrew *kotel* killing *katul* killed In corresponding forms of the Latin the *oot* remains unchanged *laud*avit he praised *laud*atus est he was praised *laud*ans praising *laud*atus praised

110 In the Chinese system the primary elements of language ollow one another without undergoing any of those changes of form which characterise the above two families of inflected languages The meaning of words is the result of their relative position and not of grammatical forms Thus *shui* water and *sheu* hand when placed together *shui sheu* mean helmsman *jhi* sun and *tse* son form *jhi tse* day

111 The Roots therefore of the Indo European languages are the primary elements of words which by internal modification or external addition acquire an almost endless variety of meanings They may consist of any number of letters forming but one syllable e g *i* as in s *i mas* gr *ι μεν* l *i mus* and *skand* as in l *scand o* At the end of *verbal roots* however *a* and *au* do not occur Almost every other combination is admissible

112 It is not possible at present to say with certainty on what principle these elementary parts of speech were formed Nor is there any clear connection between sound and sense in most of them That *πέτ ομαι*

should mean 'fly,' and $\kappa \varepsilon \hat{\imath}$-$\mu a \iota$ ' lie,' is not indicated in the character of the letters of which these words consist, nor very obviously in the sounds with which they are uttered. Various theories have been adopted, but none of them appear quite satisfactory. Further discoveries in the science of language will probably render the solution of the problem easier.

113. The *roots* of verbs and those of pronouns are distinct and independent of one another. Verbal roots usually express some state or action, as in *es*-se, 'to be;' *da*-ie, 'to give.' Pronominal roots do not express any fact or name any object, but denote some relation generally to the speaker, as in *áy*-am, 'this,' the nearer; *id*-am, 'that,' the remoter. In accordance with this difference of meaning, they are also distinguished as Roots Predicative and Roots Demonstrative; the one serving to predicate or apply some fact or phenomenon to a subject, as l. *laud*-ant, ' they *praise*;' whilst the other point out (*demonstrant*) the subject, as l. laud-*ant*, '*they* praise.' The latter are generally employed in the external inflections of the former. For example, in *as-mi*, 'I am;' *as-si*, ' thou art;' *as-ti*, 'he is:' *as* is the *verbal root*, and *mi, si, ti* are weakened forms of the *pronominal roots ma, sa, ta.*

114. The VERBAL ROOTS in Sanskrit are divided into *ten classes*, amongst which the primitive verbs of the language are distributed as follows: the *first* class contains about 1,000; the *second*, 70; the *third*, 20; the *fourth*, 130; the *fifth*, 30; the *sixth*, 150; the *seventh*, 25; the *eighth*, 10; the *ninth*, 52; the *tenth*, a large number of primitive verbs as well as the Causative and Denominative verbs.

115. This is the order followed by Indian grammarians, but the whole are also arranged in two divisions,

01 *Conjugations*   The first of these contains classes 1
4 6 and 10   The second contains classes 2 3 5 7 8
and 9   The distinguishing *characteristics* of the diffe
rent classes except in the tenth appear only in what are
called the Special Tenses viz the Present Indicative the
Potential the Imperative and the single formed Prete
rite   The other parts of the verbs are without these
distinguishing marks   These two divisions in Sanskrit
correspond to the two conjugations of Greek verbs   the
first to verbs in ω the second to verbs in $\mu\iota$ The firs
conjugation inserts a between the root and the ending
e g s *bodh i ras* we know   gr $\tau\upsilon\pi\tau$ o $\mu\varepsilon\nu$ we
strike   the second appends the termination immediately
to the root e g s *dwesh mi* I hate   gr $\phi\eta \mu\iota$ I
say

116 The processes of GUNA and VRIDDHI need here
to be noticed   The former GUNA in Sanskrit consists
in prefixing a to another vowel thus changing i or i to
e $(a+i)$ u or u to o $(a+u)$ and r or r to ar $(a+r)$
The latter VRIDDHI prefixes a in a similar way and
changes a or a to a $(a+a)$ i or i to ai $(a+i)$ u or u
to au $(a+u)$ and r or r to ar $(a+r)$

117 The FIRST CONJUGATION inserts a between the
root and the ending   The four classes of which it con
sists are distinguished principally by the use or omis
sion of *guna* and the position of the *accent*   The *First
Class* both gunaes and accents the *root* vowel   Thus
budh becomes *bo dh a ti* he knows   The *Sixth Class*
does not guna the *root* vowel and places the accent on
the connecting vowel *tud* becomes *tud a ti* he strikes
Those verbs which have a as their *root* vowel since it is
not affected by guna can of course be known as be
longing to the first or sixth class only by the position of
the accent   *Lup vid* etc of the sixth class have no

guna, but insert a nasal in the *root*, e. g. s. *lump-á-ti*, ' he splits,' l. *rump-i-t*; s. *vind-á-ti*, ' he finds.'

118. In Greek the connecting vowel has become ε (before nasals *o*): λείπ-ε-τε, ' you leave;' φεύγ-ε-τε, 'you flee;' λείπ-o-μεν, ' we leave ;' φεύγ-o-μεν; ' we flee.' The guna-vowel has also become ε, as is seen by comparing the above forms with ἕ-λιπ-ον, ' I left;' ἕ-φυγ-ον, ' I fled.' These being gunaed belong to the first, but γλίχ-o-μαι, without guna, to the sixth class. There is not the same distinction of accent between these two classes in Greek as in Sanskrit. The third conjugation in Latin furnishes analogous examples. The connecting vowel has become *i* (before *nt* it has become *u*), e. g. *leg-i-mus*, ' we read;' *leg-u-nt*, ' they read.' In Gothic the connecting vowel is *a* or *i*. Thus *haitan*, 'to be named,' has in the Sing. *hait-a*, *hait-i-s*, *hait-i-th*, and in the Pl. *hait-a-m*, *hait-i-th*, *hait-a-nd*, where the *a* appears before a nasal, like *o* in Greek, *u* in Latin, and *â* in Sanskrit. The guna-vowel appears as *i*. Thus *kin* becomes *keina*, ' I germinate' (*ei* being for i+1), and *bug* becomes *biuga*, ' I bend.' A radical *a*, being incapable of guna, as in Sanskrit, either remains unchanged, e. g. *far-i-th*, ' he wanders,' for s. *chár-a-ti*; or it becomes *i*, *qvim-i-th*, ' he comes,' for s. *gám-a-ti*. In some cases this derived *i*, being looked upon as primitive, is gunaed, e. g. *greipa*, ' I grasp,' for s. *grabh-â-mi*. Almost all the Germanic Strong Verbs belong to the first class in Sanskrit.

119. It is interesting to observe analogous deviations from general rules in different languages. One of these consists in the radical vowel being *lengthened* instead of being gunaed, e. g. s. *gú'h-a-ti*, ' he covers,' from *guh*; gr. τρί'βω, ' I rub,' from τριβ-; l. *dúco*, ' I lead,' from *duc-*; go. *us-lúk-i-th*, ' he unlocks,' from *luk*.

Each language avails itself of this liberty without any dependence upon the rest for the individual in tances which occur

120 The analogy in the influence of the *nasal co i sonants* upon the connecting vowel in different languages i also remarkable In San krit the vowel *a* becomes strengthened to *a* in Greek ε is strengthened to *o* in Latin *i* is strengthened to *u* and in Gothic *i* is strengthened to *a* We observe here the operation of the same law in having stronger vowe s to connect *nasal* consonants than to connect others with the *root* At the same time the individual modifications appear to have been independently chosen In Latin the 1st Plural has again reduced the stronger to the weaker vowel comp *leg i-mus* with *leg u nt* The *u* is irregular in the substantive verb *s u m* I am *s u mus* we are *s u nt* they are because this verb belongs to the second conjugation which admits no connect ing vowel e g s *as mi s mas* (but *s a-nti*) gr ε ι μι (for εσ μι) εσ μέν ε σι The *u* however is preserved in the Latin *vol u mus* we will if this word is ety mologically connected with the Greek βουλ ο μεν

121 The *Fourth Class* agrees with the first in accenting and with the sixth in not gunaing the *root* vowel It is further distinguished from both by pre fixing *y* (or *i*) before the connecting vowel that is it inserts *ya* between the *root* and the ending The verbs of this class therefore resemble the Passive voice in form and are generally intransitive in meaning e g *naz ya ti* he perishes from *na l up ya ti* he is angry from *kup* The *y* appears in Greek as ζ e g in βυζω βλυζω βριζω σχιζω So also πιζω for πι yω which furnishes some of the tenses of πι -ι σκω corresponds to s *pi ye* (Mid) I drink After a liquid the *y* in the form of

y, is sometimes thrown back into the root, just as
ἀμείνων, 'better,' is for ἀμενγων, and χείρων, 'worse,' for
χερyων. e. g. χαίρ-ω, ' I rejoice,' for χαρyω, answering to
s. *hŕsh-yâ-mi*; and μαίν-ε-ται, 'he rages,' for μαν-yε-ται,
answering to s. *mán-ya-tê*. Sometimes this *y* forms
a diphthong with the root-vowel in Greek, where the
Sanskrit drops the root-vowel, e. g. δαί-ω, 'I flame,' for
δα-yω, s. *d-yâ-mi*. Again, we meet with this *y* in the
form of ε, which, in some cases, must have very closely
resembled it in pronunciation: for example, in πίστεως,
' of faith,' where εω is pronounced as one syllable. Thus
we have ὠϑ-έω, 'I push,' for ὠϑ-yω.

Latin verbs of the third conjugation in *-io* belong to
this class, e. g. 1. *cup-io*, 'I desire;' s. *kup-yâ-mi*, 'I
am angry;' l. *cap-io*, 'I take;' go. *haf-ja*, 'I lift.'
Such forms as *pi-yu-n*, 'I drink,' in Old Slavic, may
belong to this class. But as the *y* occurs between two
vowels, it may be only euphonic. Gothic verbs in *-ja*
(=*ya*) are of this class, e. g. *vahs-ja*, 'I grow' (wax) ;
bid-ja, 'I beg' (bid). When Sanskrit *ó* is changed to *a*
in Gothic, *y* is also changed to *i*, and forms with *a* the
diphthong *ai*, e. g. *vai-a*, 'I blow,' for va-ja; *lai-a*, 'I
despise;' *sai-a*, 'I saw.'

Probably no roots originally ended in diphthongs.
Those which now appear in that form resulted from con-
traction, and belong to this class, e. g. *gâ'yati*, from gâ,
not from gai; *dháyati*, from dhâ, not from dhai. So also
dyâti is from dâ, as is clear from the Participle *dâ-tas*,
' cut off,' and the Substantive *dâ-trum*, ' a sickle.'

122. The *Tenth Class* gunaes the root-vowel like
the first class, and, like the sixth class, it *accents the part
inserted* between the root and the ending. This class,
instead of *a* of the first and sixth, and *ya* of the fourth,
inserts *aya* between the root and the ending, and

• **125.** The *Third Class* prefixes a syllable of *redu-plication*, and places the accent on this syllable, e. g. *dádâ-ti*, 'he gives;' *dádhâ-ti*, 'he puts.' The Gieek language has many forms belonging to this class, e. g. δίδω-τι, τίθη-τι, βίβη-τι. In Latin the second *i* in *sisti-t, bibi-t,* is a shortened form for Sanskrit *â* ; *seri-t* for *sisi-t*, with the common softening of *s* to *r* between vowels, and the usual change of *i* to *e* before *r*, is another instance of a *reduplicated* form of this class, as is indicated by the participle *sa-tus*.

126. The *Seventh Class* inserts in the *root* the syllable *na* before the 'light' endings, and this is reduced to *n* before 'heavy' endings, being changed, when necessary, to a nasal of the same organ with the final consonant of the *root*. In the last case words of this class coincide with those of the sixth, except in having no connecting vowel. Most of the corresponding words in Latin insert a connecting vowel, and agree with the *first*, instead of the *second*, Sanskrit conjugation. The accent in Sanskrit is placed upon *na* in the first case, and upon the endings in the second, e. g. *yunáj-mi,* 'I bind;' *yunj-más*, 'we bind;' *bhinád-mi*, 'I split;' *bhind-más*, 'we split;' *chhinád-mi*, 'I cut;' *chhind-más*, 'we cut.' In Latin the corresponding words have the syllable in both cases reduced to the mere nasal, and a connecting vowel inserted, e. g. *jung-o,* 'I join,' *jung-i-mus*; *find-o*, 'I cleave,' *find-i-mus*; *scind-o*, 'I cut,' *scind-i-mus.* In Greek some veibs exhibit the characteristics of two classes, a nasal inserted and another appended to the root, e. g. λαμβάνω, 'I take,' λιμπάνω, 'I leave,' μανθάνω, 'I learn,' from the roots λαβ, λιπ, μαθ, as in ἔ-λαβ-ον etc. In Gothic a nasal is inserted in the Present tense of *standa*, Pret. *stóth*; a. s. *stande, stód*; e. *stand, stood.* In this word

the final consonant *d* appears to be inorganic as it does
not exist in Sanskrit Greek or Latin   A similar phe
nomenon appears in *mitu* e *ɳ ete* compared with s
ma   to measure

127 The *Fifth Class* adds *nu* to the root and this
syllable is both gunaed and accented before light
endings but   heavy   endings both prevent guna and
themselves take the accent e σ *str no mi*   I spread
str nu mas   we spread   gr σ *oρ ιv μι* (where the
vowel is lengthened instead of being unaed)   στορ *vu*
μες

128 The *Eighth Clas* probably ought to be in
corporated with the fifth   It is said to add only *ι* to
the *root* but as all the *roots* except one terminate in
n this may easily be supposed to have caused the omis
sion of the second *n*   Guna and accent are the same
as in the fifth class *tan o mi* I stretch *tan u nas* we
stretch gr ταν v μαι αv v μι I complete γαv v μαι
I delight in   ολ λv μι I perish from ολ vv μι

129 The *Ninth Class* adds *na* before light and
ni before heavy endings and accentuates like the
fifth class   The Greek has *vη* before light and *va*
before heavy ending   This is irregularly shortened in
such forms as δακ *vo* μεv we bite   e ʒ s *yu na mi*
I bind *yu ni mas* we bind   gr δαμ vη μ   I tame
oaμ va μεv s *str na mi*   I strew *str ni mas* we
strew   l *ste no ste ni mus*

130 The following is a brief list of *root* which
may serve further to illustrate the relation of these
languages one to another   It will have become obvious
how the modifications of the different classes of roots
are almost entirely lost in English thus illustrating
the progress of phonetic decay

Sanskrit	Zend	Greek	Latin	Gothic	English
gâ	—	βῆ-ναι	—	gagg-an	go
dhâ	dâ	ϑεῖ-ναι	—	—	do-n, do-ff
jnâ	znâ	γνῶ-ναι	gno-sco	—	know
wâ	—	—	—	vi-ñds	wi-nd
sthâ	stâ	στῆ-ναι	sta-re	sta-nda	sta-nd
i	—	ἴ-τε	i-re	—	—
zwi	—	κὐ-ειν	—	hau-hs	hi-gh
smi	—	μει-δ-άω	—	—	smi-le
prî	frî	φιλ-ειν	—	frij-on	frie-nd
zî	—	κεῖ-μαι	qui-eo	—	—
plu	fru	πλε-εῖν	plu-o	—	floo-d
zru	ziâv	κλύ-ειν	clu-eo	—	—
lû	—	λύ-ειν	lu-o	liu-san	loo-se
bhû	—	φύ-ειν	fu-i	bau-an	be
ad	—	ἔδ-ω	ed-o	it-an	eat
dru	—	ἐ-δρα-μ-ον	—	—	—
bandh	band	ἐ-πιϑ-ον	fid-o	bind-an	bind
stig	—	ἐ-στιχ-ον	—	steig-an	sti-le
ruh	rudh	—	—	—	rood, rod
bhrâj	—	φλέγ-ειν	flag-rare	bairh-ts	brigh-t
râj	râz	—	—	reik-s	rich
sach	—	ἕπ-ομαι	sequ-or	—	seek
as	as	ἐσ-τί	es-t	is	is
iksh	—	ὀπ-ός	oc-ulus	aug-o	eye
jush	zausha	γεύ-ω	gus-tare	kius-an	choose
diż	diz	δείκ-νυμι	dic-o	teih-an	teach
jîv	jva	βιό-ω	viv-o	qiu-s	quick

V STEMS

131 We have seen that in some cases letters or
syllables intervene between the root of a verb and
the endings which denote person and number   Thus
in the Latin *regit* he rules *t* meaning he   she or it
is not added to the simple root *ι g* but to the com
pound form *regi*   So in the Perfect tense *rexit*   he
ruled   *t* is added to another compound form consisting
of *ιeg + s + ι*   So also in nouns the endings which
denote case and number are similarly added to a com
pound form   thus in *regem* the sign of the Accusative
Singular *m* is added not to *ιeg* but to *ιege*   This com
pound form in distinction from the root is called a
stem in harmony with the same figure of speech   The
complete word conveying intelligence is not the bare
root nor the root and the connecting medium or the
stem but the entire tree with its branches and fruit

132 *Nominal Stems* of this kind are used with
case endings to form primitive nouns e g Gen S
ιegιs   of a king   and without case endings as the
first member in compound nouns e g *ιegι fugιum*
king s flight

Different *genders* are sometimes indicated by dif
ferent *stems* of the same word *αγαϑ o s* good *αγαϑ o ν*
Mas and Neut have the same *stem αγαϑo* but *αγαϑ ι*
Fem a different one   So in Latin *bon u s*   good
Mas *bon u m* Neut have the same stem *bonu* but
bon a Fem a different one   This distinction is pre

Served somewhat incompletely in Gothic, confusedly in Anglo-Saxon, and in English the word, e. g. *good*, is reduced again to its root form, all indication of *stem*, case, and number being lost. The *Neuter* gender at first doubtless was employed in reference to things which had no natural distinction of sex. In course of time it has, in some languages, acquired a wider application, as in English; and in others has entirely gone out of use, as in French.

The *number* of nouns is usually denoted by a modification of the case-ending. In Sanskrit *bhyam* is sometimes the ending of the Dative Sing.; *bhyâm* the Dat. Dual, and *bhyas* the Dat. Plural. The *Dual* number, which was very carefully employed in earlier times, gradually lost its power, and then entirely disappeared, so that it no longer exists in the principal living languages of the Indo-European family. The Sanskrit has it most perfectly, both in the noun and the verb. The Zend has it rarely in the noun, but frequently in the verb. The Greek preserves it extensively, the Latin only in *duo* and *ambo*. It is in the Gothic pronoun and verb, as well as the Anglo-Saxon pronoun, but apparently in no other Germanic language.

Terminations of Nominal Stems.

133. In Sanskrit all the three vowels *a, i, u,* occur at the end of Nominal Stems. They are usually of the Masculine gender. *a* is always either Masculine or Neuter. It is represented by *a* in Zend, and in a few cases in Gothic; by *o* in Greek and Latin. In later times the Latin *o* was in some cases changed to *u,* e. g. λόγ-o-s, 'word;' δῶρ-o-ν, 'gift;' *domin-u-s,* 'lord,' *domin-o-rum; regn-u-m,* 'dominion,' *regn-o-rum;* s.

vrk a s wolf gr λυκ o s l *lup u s* ι occurs in all three
genders   It is ι or ε in Greek πολι s πολε ως and ι or
e in Latin *facil ı s*   easy *facil-e m* s *ıa n*   water
l *ma e*   sea Nom Pl *man ı a*   *u* occurs in the three
genders   The same letter is preserved in the other
languages s *sun u s* go *sun u*   son s *suad u s*
  sweet gr ηδ υ s   The fourth declension in Latin
furnishes examples

134 The *stem is* ending in the long vowels *a ı ı*
in Sanskrit are generally Feminine seldom Masculine
and never Neuter   *a* is shortened to *a* in the other
languages   But the Gothic has *o* in some oblique cases
and in the Nominatives *so* that (she) for s *sa* and
hio who for s *ı a*   ı is often employed in Sanskrit
and Zend to form Feminine derivatives e g *mahat ı*
  great from *mahat*   A further addition is made to it
where it is preserved in Greek and Latin *a* or δ is
added in Greek and *c* in Latin   Thus s *swad u s* M
swad u N   becomes *swad ı* in the Fem   but in gr
ηδ υ s M   ηδ υ N   becomes ηδ ει a in the Fem s *jan ı*
tr ı gr γενετειρα for γενετρια l *genetrix (geneti ı c s)*
λῃστρις Gen λῃστρι δ ος for s *tr ı*   The placing of
ι a syllable further back as in γενετειρα frequently
occurs in the Greek language   We have noticed other
instances above   But sometimes a much greater change
occurs in the terminations which we are now consider
ing   The ι retains its place but is ultimately changed
to σ   Thus from δολο is formed δολο εντ by an affix
which appears in Sanskrit as *vant* and in weaker forms
as *vat* (e σ *dhana* **vatı** Fem) for which the corespond
ing Greek form would be ετ   Hence we obtain the
Fem δολο ετ ια then δολο εσ ια and finally the clas
sical form δολο εσ σα cunning   The change of *t* to a
sibilant is illustrated by the English pronunciation of *t*

ᐧbefore *i* in such words as *nation*. This word may also serve to illustrate another change in the Greek Feminine termination -*ια*; for as in 'nation' the *i*, after giving a sibilant sound to *t*, is omitted·in pronunciation, so in such participles as φέρουσα, 'bearing'·(for φεροντ-ια), the *ι* disappears after having produced its effect on the preceding consonant; the only difference being that in Greek the writing is adapted to the new sound, whilst in English the old spelling is preserved with the new pronunciation. In Gothic the long vowel, written *ei*, is followed by an inorganic *n* in the Present Participle, e. g. s. *bhárant-î*, go. *bairand-ei-n*, 'bearing.' Or *î* is changed to *j* (y), and followed by *ô*, e. g. *frijond-s* M., *frijond-jô* F., 'friend;' *thiu-s* M., *thiu-jô* F., 'servant.' *û* is rare in Sanskrit. But there occur *zwazrû*, l. *socrus*, 'mother-in-law;' *bhrû*, gr. ὀφρύ-ς, 'eyebrow.'

135. There are a few instances of *stems* with diphthongal terminations: *rái*, 'riches,' becomes *rá* before consonants, and answers to the Latin *ré*; *dyô* is from the root *div*, and forms some of its cases from *dyâu*. The Nom. Sing. *dyaus* corresponds to Greek Ζεύς, *d* being dropped, *y* changed to ζ, and *â* shortened to ε. The Latin has added *i* to the *stem* in *Jov-i-s*. s. *gô*, 'ox,' is in Zend *gau*, gr. βοῦ, l. *bô* or *bov*; s. *nau*, 'ship,' gr. ναῦ-ς, l. *nâv-i-s*. The *stem* is preserved, without the additional *i*, in *nau-fragus*, 'shipwrecked.'

136. In Sanskrit CONSONANT STEMS, i. e. *stems* ending in consonants, are confined to the letters *n*, *t*, *s*, *r*. Several other consonants occur at the end of *roots*, which are used in the formation of nouns. In Greek and Latin a consonant appears sometimes in addition to the vowel *stem* in Sanskrit, e. g. the patronymics in -ιδ, and l. *pecu-d-is* compared with s. *paźu*, go. *faihu*⸺

flock (e *fee*) s frequently occurs in Sanskrit and serves to explain some otherwise obscure forms in Greek and Latin   Thus it appears that the σ in μεν s   mind γενος   race belongs to the stem and therefore the genitives μενεος γενεος are for μενεσος γενεσος   So also the first σ in τευχεσ σι ορεσ σι belongs to the *stem* and the second only to the case ending   The compounds σακες παλος wielding the spear τελ s φορος com pleting   preserve the original σ in the first member of the compound   In Latin this *s* coming between two vowels is softened to *i* e g *genus* race *generis* An analogous modification of the preceding vowel also takes place in these two languages   the Nom Sin having *o* for ε in Greek   and *u* for *e* in Latin a change similar to that which occurs in the connecting vowel of verbs before nasal consonants

137 In Sanskrit the *stem* sometimes as umes three different forms — the strong   middle and weak The strong   forms are used with the lightest case endings the weak with the heaviest and the middle with those of intermediate weight   e g *rud* weep has a reduplicated preterite   the participle of which has Acc Sing M rurud wa ns am Loc Plu M and N rurud wat-su Gen Sing M rurud ush as where the *stem* ends in the strong *wans* the middle *wat* and the weak *ush*   More generally the *stem* has but two forms when the   weak includes the   middle and weak in the previous classification   The weak in the division into three   only includes the Gen M and N of the three numbers   The eight cases of Sanskrit (and Zend) are therefore divided into two classes — the strong   those which have the *strong stem*   and the weak   those which have the *weak stem*   The follow ing example will show which they are   —

	STRONG CASES.	WEAK CASES.
Sing — Nom. Voc.	bhár-an(t), 'bearing'	
Acc.	bhár-ant-am	
Instr.		bhár-at-â
Dat		bhár-at-ê
Abl.		bhár-at-as
Gen.		bhár-at-as
Loc.		bhár-at-i
Dual.—Nom. Voc. Acc.	bhár-ant-âu	
Instr Dat. Abl.		bhár-ad-bhyám
Gen. Loc.		bhár-at-ôs
Plu. — Nom. Voc.	bhár-ant-as	
Acc.		bhár-at-as
Instr.		bhár-ad-bhis
Dat. Abl.		bhár-ad-bhyas
Gen		bhár-at-âm
Loc.		bhár-at-su

This arrangement is not carried out so fully in Zend
as in Sanskrit. The accentuation of words with mono-
syllabic *stems*, where this difference of strength in the
stems cannot be made, sometimes coincides with this
arrangement of cases. And, singularly enough, the
Greek retains the same position of the accent: e. g.
s. vâk and gr. ὄπ-s are of the same origin, and are thus
accentuated.

	STRONG CASES.		WEAK CASES.	
Sing — Nom. Voc.	vâk ('voice')	ὄπ-ς		
Acc.	vâch-am	ὄπ-α		
Instr.			vach-â'	
Dat.			vach-ê'	
Abl.			vach-ás	
Gen.			vach-ás	ὀπ-óς
Loc. (gr Dat)			vach-ı'	ὀπ-í
Dual — Acc Voc.	vâ'ch-âu	ὄπ-ε		
Instr. Abl.			vâg-bhyâ'm	
Dat.			vâg-bhyâ'm	ὀπ-οῖν
Gen Loc.			vâch-ô s	
Plu. — Nom. Voc.	vâ ch-as	ὄπ-ες		
Acc.	vâ'ch-as	ὄπ-ες		
Instr.			vâg-bhís	
Dat. Abl.			vâg-bhyás	
Gen.			vâch-â'm	ὀπ-ῶν
Loc. (gr Dat.)			vâk-shú	ὀπ-σί

The Acc. Plu. is heie placed among the strong cases, because of the position of the accent. Again, in πατερ, μητερ, θυγατερ, the ε is dropped only in the weak cases. In Gothic also *a* is dropped before *r* and changed to *i* before *n* in the weak cases: e. g. brôthar becomes in the Dat. *bróthr*, Gen. *bróthrs*; *ahan*, Dat. *ahin*, Gen. *ahins*.

138. When a case-ending which begins with a vowel has to be added to a *stem* which ends in a vowel, a euphonic consonant is inserted between them, e. g. in the Instr. Sing. and Gen. Pl. in Sanskrit, *n*; in the Gen. Pl. of three declensions in Latin, *r*.

VI. FORMATION OF CASES.

139. In Sanskrit and Zend there are *eight cases,*
of which the Greek preserves only *five*; the Latin, *six*:
the Gothic, *five*; Anglo-Saxon, *five*; and English, none.
Some isolated instances remain in different languages,
of a case which no longer forms part of their grammar,
as, for instance, single words referable to the Locative
case in Greek and Latin.

THE NOMINATIVE SINGULAR.

140. The sign of the *Nominative Case Singular*, in
the Masculine and Feminine, is *s*. It forms *ô* with a
preceding *a*, sometimes in Sanskrit, always in Zend.
It is omitted at the end of consonant stems, and if the
stem ends in two consonants, the latter of these is also
dropped, e. g. Nom. *bibhrat*, ' bearer,' for *bihbrats*;
tudán Nom., ' striker,' for tudants.   In Zend the *s*
is preserved, e. g. Nom. *afs,.* 'water.'   Stems in *n* omit
this letter as well as the Nominative sign, lengthening
the preceding vowel as a compensation, e. g. Nom.
dhaní, 'rich,' from dhanín; Nom. *râ'jâ*, from râ'jan.
The same occurs in Zend, except that the vowel is
lengthened only in monosyllables, e. g. Nom. *çpâ*,
' dog,' from zpan; *ashava*, ' pure,' from ashavan.
Stems in *-ar, -âs* omit both their final consonant and
the Nom. sign, lengthening the preceding vowel when
short, e. g. Nom *pitâ'*, 'father,' from pitar; *dâtâ'*, 'giver,'

from datar The Zend omits the lengthening of the
short vowel e g Nom *braata data* Stems in *as* omit
the Nom sign and lengthen the preceding vowel e g
Nom *durmanas* evil minded from durmanas Of
vowel stems the Feminines in *a* always and those in *i*
generally omit the Nominative sign e g Nom *ziva*
from ziva Nom *nadi* from nadi but Nom *bhis* from
bhi

The Greek and Latin languages preserve the Nom
sign in consonant stems omitting the stem consonant
if it be a Dental e g χαρι s for χαριτ s *virtu s* for
virtut s So also τιϑει s *aman s* for τ ϑεντ s amant s
But Gutturals and Labials in the stem are preserved
e g κορακ s λαιλαπ s lex (leg s) Greek stems in ν
sometimes preserve this consonant and sometimes the
Nominative sign but never both and generally a pre
ceding short vowel is lengthened e g μελα s (μελαν)
τερην (τερεν) In Latin there is the same diversity and
in many cases both consonants are omitted e g *sangui s*
(**sanguin**) *flumen* (**flumin**) *homo* (**homin**) ρ is
generally preserved and the Nom sign omitted εαρ
spring (εαρ) but μαρτυ s witness (μαρτυρ) The
stem consonant *i* is likewise preserved in Latin and the
Nom sign omitted e g *maimoi vei* Stems in *s*
lengthen the prece ing vowel as in Sanskrit to com
pensate for the omission of the stem consonant or of
the Nom sign e g δυσμενης from δυσμενεσ Gen
δυσμενε(σ) os The same remark holds good of the
Latin words mos flos etc where the *s* may be regarded
either as belonging to the stem and softened to *r* between
two vowels in the oblique cases or as being the Nom
sign before which the stem consonant is dropped

In Gothic *a* and *i* are omitted before the Nom sign
where it is possible that is in all but monosyllabic

words and such words as *harja*, 'an army'. The *a* is weakened, however, to *i* in the Gen. *harjis*. *ja* thus formed are often contracted to *ei* (=i), in other cases diminished to *i* or altogether dropped, e. g. *wulf-s*, 'a wolf; *gast-s*, 'a guest;' *althei-s*, 'old,' *sûti-s*, 'sweet; gamein-s*, 'common.' After *r* the Nom. sign is sometimes omitted, e. g. *waír*, 'man;' *fingr-s*, 'finger,' *au* after a long vowel loses *u* in the Nom., and after a short vowel the *v* is also changed to *u*, e. g. *snáiw-s*, 'snow;' *qviu-s*, 'living.' *ŋ* is dropped, but *ŋd* is fully preserved before the Nom. sign, e. g. Nom. *ahma*, 'mind, from ahman; bairand-s*, 'bearing.' The *n* in Feminines, preceded by *ó* or *ei*, is inorganic. e. g. *riduvón*, s. *vidhuvâ*, l. *vidua*, *quináu*, s. *jirâ'*.

The Neuter has no special form for the Nominative case; the Accusative form is used in its stead.

141. The following list contains illustrations of the Nominative case Masculine and Feminine

	Sanskrit	Zend	Greek	Latin	Gothic	Ang.-Sax	English
m	áçwa-s	aẓpa-s	ἵππο-ς	equu-s	vulf-s	wulf	wolf
f.	áçwâ	huzvâ	χώρα	equa	giba	gifu	gif-t
m	pâti-s	paiti-s	πόσι-ς	hosti-s	gast-s	gest	guest
f	pîti-s	âfiti-s	ὄι-ς	ovi-s	avi	eowu	ewe
m.	súnú-s	pazu-s	νέκυ-ς	pecu-s	sunu-s	sunu	son
f.	hanu-s	tanu-s	γένυ-ς	sociu-s	handu-s	hand	hand
f.	bhrû	—	ὀφρύ-ς		brav	braw	brow
m.f	gâu-s	gâu-s	βοῦ-ς	bô-s	—	cû	cow
f.	vâk	vâk-sh	ὄπ-ς	voc-s	—	—	
m.	bháran	baran-z	φέρον	feren-s	fijand-s	feónd	fiend
m.	áẓmâ	azmâ	δαίμον	sermo	ahma	—	
m	bhiâtâ	brâtâ	φράτωρ	frâter	brôthar	brôther	✱ brother
f	duhitấ	dughdhâ	θυγάτηρ	mâter	dauhtar	dôhtor	daughter
m.	dâtấ	dâtâ	δοτήρ	dator	—	—	

THE ACCUSATIVE SINGULAR.

142. The sign of the *Accusative Singular* is *m* in Sanskrit, Zend, Latin, and perhaps in the English word *hem*. In Greek the sign is *ν*. The Gothic and Anglo-Saxon preserve this ending only in the Masculine of pronouns of the third person, the former adding *a* and the latter *e*, and both having *n* instead of the original *m*. Thus go. *tha-na*, a.s. *tho-ne*ₓ=s. *ta-m*, gr. *τό-ν*, l. *is-tu-m*.

A vowel is inserted between the termination and consonant stems. Hence we have in s. *bhrá'tar-am*, z. *brátar-èm*, gr. *φράτορ-a* (for older *εν*), l. *fratr-em*. Monosyllables in *í*, *ú*, *ô u* develope a half-vowel in Sanskrit, and then insert the vowel between the stem and the Accusative ending, e. g. *bhíy-am*, *súv-am*, *ná'v-am*, from *bhí*, 'fear;' *sú*, 'sow;' *náu*, 'ship.' Similarly Greek Accusatives in *ε-a* have probably passed through an intermediate stage in -*εᶠa*, from which the digamma was afterwards dropped, e. g. *βασιλέ-a* from *βασιλεϜ-a*. So also the Latin forms *su-em*, *gru-em* may have been formed from the stems suv-, gruv-, like *bov-em*. Otherwise *em* may have been irregularly added instead of *m* to make the words dissyllabic. Accusatives like *ignem* should be divided into *igne-m*, since the stem ends in *i* or *e*.

Stems in -*a* in Sanskrit, and the corresponding forms in other languages, take *m* as the Accusative sign in the *Neuter*, and the form thus obtained is employed for the Nominative, e. g. Nom. and Acc. Neut. s. *záyana-m*, 'a bed,' z. *zayanè-m*, gr. *δῶρο-ν*, l. *dônu-m*. Other Neuter stems have no sign for either Nominative or Accusative, but employ the unaltered stem in their place. Final *s* in Greek and *s* in Latin belong to the

stem e g γενος *genus* In the cases where this letter
would come to stand between two vowels it is dropped
in Greek and softened to *i* in Latin e Gen γ νε ος
jenei is Some Greek adjective and participle h ve
final *s* in the neuter prob ably only as a euphonic sub
stitute or τ which cannot stand at the end of a word
e g τ τυφος τερας for τε υφ τ τερατ lil e τρος for
πρoτι when the ι was dropped Or it may have been
added by a false analo y to the Nom and then to the
Acc just a in L tin we have *felix* Nom and Acc
Neut for *felic* In Gothic the N uter omit the Accu
sative sign even in the *a* stems e g *daui* door for
s *dua ani* In Anglo Saxon *di i u* is placed by Rask in
the third class of his third declension which consists of
Feminine sub tantives It has there the same form
for Nom and Acc and *u* may be regarded as a weakened
form of *a* as in *gifu* for σο *giba* But it has also
some of the forms of the Neu er substantives of the first
declension which have no case si n in the Accusative
Stems in *ja* drop *a* changing the *i* to *i* in Gothic and
this again to *e* in Anglo Saxon e go *reihi* a s *rice*
s *rajya m* The Gothic has no Neuter stems in *i* and
only one in *u* i e *faihu* for whi h the Anglo Saxon
has *feoh* (e *fee*) dropping the stem vowel

  Pronon inal Neuter Stems form the Accusative with
t in Sanskrit *d* in Zend τ in Greek *d* (for *t*) in Latin
t (with the addition of *a*) in Gothic *t* in Anglo Saxon
which also remains in English e s (*i t* wanting)
ta t ka t z (*i d* wanting) *ta d ka d* r (*i τ* wanting)
τo τ o τ as in οτ τι l *i d is* tu *d* quo *d* go *i ta*
tha ta hua ta a s *hi t thœt hwœt* e *i t that*
wha t The Greek language generally drops τ when
final Hence we have τo o for the above forms For
the sake of uniformity the Vedic *kat* is used above
instead of the s *chit*

143. The following list illustrates the different forms of the Accusative case

	Sanskrit	Zend	Greek	Latin	Gothic	Anglo Sax.	English
m	áśwa-m	açpe-m	ἴππο-ν	equu-m	vulf	wulf	wolf
n	dâ'na-m	dâte-m	δῶρο-ν	dônu-m	daur	duru	door
f.	áźwâ-m	hizva-nm	χωρά-ν	equa-m	giba	gifu	gift
m	pât̃-m	patî-m	πόσι-ν	hoste-m	ga-st	gæst	guest
n	vâri	vâri	ἴδρα	mare	—	—	—
f	pit̃-m	áfiti-m	πόρτι-ν	turi-m	anst	—	—
m.	sûnú-m	pazu-m	νέκυ-ν	pecu-m	sunu	sunu	son
n.	mádhu	madhu	μέθν	pecû	faihu	feoh	(fee)
f.	hánu-m	tanû-m	γένυ-ν	socru-m	handu	hand	hand
m. f.	gâ-m	ga-nm	βοῦ-ν	bov-em	—	cú	cow
m.	bhâi ant-am	barent-em	φέροντ-α	ferent-em	frijand	feond	fiend
n.	nâ'ma	nâma	ταλαν	nômen	namô	(nama)	name
m.	bhrâ'tar-am	brâtar-em	φράτορ-α	frâtr-em	brôthar	brodher	brother
f.	duhitár-um	dughdhar-em	θυγατέρ-α	mâtr-em	dauhtar	dóhtor	daughter
m.	dâtâr-am	dâtâr-em	δοτῆρ-α	datôr-em	—	—	—
f.	váchas	vachô	ἔπος	genus	—	—	—

THE INSTRUMENTAL SINGULAR

144 The *Instrumental* case remains in but few
languages The sign of this case is *a* in the Vedas
forming with *a* stems *a* for *a+a* or connected with
them by *y* and thus forming *aya* e g *mahitia* from
mahitwa greatness *uruya* from *uru* great In
later Sanskrit this case ending is connected with *a*
stems by *n* It is then shortened and the preceding
a is changed to *e* e g *a wena* from *a ua* But with
other vowel stem the *a* is preserved long and the stem
vowel not changed e g *ajni na sunu na* The
pronouns of the first and second person have the same
form as in the Vedas e g *ma ya twa ia* from *ma
twa* *Pati* and *sakhi* change *i* to *y* and do not insert
n e g *paty a sakhy a* Feminines do not insert *n*
but change *a* of the stem to *ay* e g *a way a* from
a i a mare The Greek and Latin languages have
not this case Some remains of it appear in the Ger
manic languages In Gothic *the* by that *h e* by
what *sve* by such In Anglo Saxon *tha hu* (for
hua probably to distinguish it from the Nom Sing
Masc of the Interrogative pronoun) *swa* and in Eng
lish *thus* (irregular for *tho*) *how* (derived from the
a s *hu* the same reason probably holding against
the regular form *who*) and *so* The meaning and form
of these words justify their being referred to the Instru
mental case The way in which both forms *sva* and
sie in Gothic occur induces Grimm (*Geschich e etc*
929) to think they are both ultimately derivable from
the same source and have distributed between them the
words and meanings which according to the analogy
of *hve* would have belonged to *sie* alone if *sia* had not

-come into use. The above forms are the only instances of an Instrumental case traceable in Gothic. But Anglo-Saxon, as well as Old German, contains many examples both in substantives and adjectives, e. g. *fýrené sueordé,* ' with a fiery sword' (Cædmon, 18. 17 ; 95, 8).

The following is a list of Sanskrit and Zend words in the Instrumental case :

	m.	n.	f	m	f
Sans	ázwe-n-â	mahitwâ'	ázway-â'	píty-â	prity-â
Zend.	azpa	dâta	hizvay-a	patay-a	áfíiti

	m	f	m.f	f	m
S.	sunú-n-â	kánw-â	gáv-â	vá'ch-â	bhárat-â
Z.	pazv-â	tanv-a	gav-a	vách-a	barent-a

	m.	n	m	f	n
S.	ázman-â	ná'mn-â	bhrâ tr-â	duhitr-â'	váchas-â
Z	azman-a	nâman-a	bráthr-a	dughdher-a	vacnanh-a

THE DATIVE SINGULAR.

145. The original *Dative* case has been more extensively preserved than the Instrumental. Its sign in Sanskrit is *é,* and with Feminine stems in *â,* and polysyllables in *í, û,* it becomes *âi,* preceded by *ây* instead of *â,* e. g. *ázwây-âi* from *azwá.* Masculine stems in *i, u,* are gunaed, and Feminines, if the case-ending is *é.* Neuter vowel stems insert *n.* The same sign is preserved in Zend, but *âi* is preceded by *ay* instead of *áy.* Masculine *a* stems make $\hat{a}ya$ $(= a + ay + a = a + \hat{e} + a)$ in Sanskrit, and $\hat{a}i$ $(= a + ai = a + \hat{e})$ in Zend. The use of guna is also only partial in the *i* and *u* stems. What is called the Dative in Greek and Latin corresponds in

11, in to the San kiit Locative and will be considered in connection with that case

In Latin the ending is *i* If in Latin as in Greek this case was originally the Locative case the long quantity of the final vowel must be referred to a general tendency in the Latin language which increases the quantity of this vowel at the end of a word without organic cause To the general rule that final *i* is long there are but very few and those isolated exceptions Although therefore the quantity of this vowel induces Bopp to regard this case in Latin as originally a Dative yet the great probability that Greek and Latin both adopted the same course and the existence of a sufficient reason in the genius of the Latin language to account for the subsequent change of quantity in the vowel justify our regarding the Latin Dative as originally a Locative case

In Gothic this Dative ending is entirely lost unless the *i* in *gibai* (for giba i) be regarded as a remain of it in the Feminine *a* stems   The gunaed forms of the stems in *i i u u* are retained   but in the first of these cases the final *i* is dropped *e g gasta* (for *gustai*) *anstai sunau kinnau* from gasti ansti sunu kinnu

146 The *Pronouns* are in so far peculiar that in several cases of which the Dative is the first that comes under our notice they insert the syllable *sma* between the stem and the case ending This syllable is capable of many modifications by omission of one or other of the letters and by euphonic changes It appears consequently in many fragmentary forms in different languages e g the Dat Sing of *l a* is *l asmai* to whom? ($= l a + sm a + e$) The syllable appears in Zend as *hma* in Pracrit as *iha* This inversion of letters resembles that in the English word *who* for the Anglo Saxon *hwa*

and it renders less startling the connection between the
Sanskrit *sma* and the Gothic *usa*: the s, being a Dental,
changes the preceding Labial *m* to the corresponding
Dental *n*. It thus becomes easy to identify the English
us and the Sanskrit *asmân*. For, as s. *asmân* is pro-
bably for *asmans*, the vowel being lengthened to com-
pensate for the *s*, it is clearly the same as the go. *insis*
(for u-nsa-s), where *s* is preserved and *n* dropped. But
this *unsis* has already become *us* in Anglo-Saxon as
well as English, merely by that system of abbreviation
which Horne Tooke so convincingly showed to be an
inherent characteristic in the history of language. This
particle, however, assumes no less than six different
forms in Gothic. viz. *usa*, *zva*, *gka*, *gqva*, *mma*, and *s*.
The first, *usa*, occurs in the Accus., Dat., and Gen. Plur.
of the first personal pronoun, and the second, *zva*, in
the same parts of the second personal pronoun, i. e.
u-ns-, 'us,' *v-nsi-s*, 'to us,' *v-usa-ra*, 'of us,' *i-zvi-s*,
'you,' *i-zvi-s*, 'to you,' *i-zva-ra*, 'of you.' In the
corresponding cases of the Dual the first person has *gka*,
and the second *gqva*. i. e. *u-gki-s*, 'us two,' *u-gki-s*,
'to us two,' (*u-gka-ra*): *i-gqvi-s*, 'you two,' *i-gqvi-s*,
'to you two' *i-gqvu-ra*, 'of you two.' The *g* here
stands for *n* (*ng* before Gutturals). The fifth form,
mma, occurs in such Datives as *i-mma*, 'to it,' *hi-mma*,
'to him,' *hva-mma*, 'to whom?' where *mm* is by
assimilation for *sm*. The sixth form, *s*, appears in the
Datives, *mi-s*, 'to me,' *thu-s*, 'to thee,' *si-s*, 'to one's
self.' Bopp also ascribes the same origin to the *s* in the
Nom. Plur. *vei-s*, 'we,' and *ju-s*, 'you.'

In the Feminine forms of the third personal pronouns
in Sanskrit, the Dative, Genitive, and Locative Sing. end
in *-sy-âi*, *-sy-âs*, *-sy-âm*, of which the first part *sy* may
be for *smy*, and this for *smî*, an ordinary Feminine equiva-

lent in Sanskrit for *sma* A confirmation of this view
is obtained from the Zend which preserves forms like
yc hmya for s *ya sy a n* For Zend *hmy* presuppose
a Sanskrit *s i t* In-Gothic *o* is a Feminine termination
which would give the orm *smo* to this particle If
then *i* be dropped as in Sanskrit the remainder *so*
serves to explain such word as Gen Sing thi zo s the
s being regularly softened to between two vowels a
it i in Latin to *r*

In Anglo Saxon a fur her change has taken place
The Gothic *nsa* has perhaps entirely disappeared in the
Acc and Dat *u s* Gen *u re* The *ou* in the Acc and
Dat *eou* Gen *eower* may be an equivalent for the *v*
(or *w*) in the Gothic *ir* In the Dual of the first
person (Acc and Dat *u nc* us two Gen *u nce r* of
us two) and the Dual of the second person (Acc and
Dat *i nc* you two *i nce r* of you two) the remains
of this particle are almost as complete as in Gothic
Why has the Dual prescrved fuller forms than the
Plural ʳ Probably because the Dual had for a long
time been of rare use in common language and the
antique forms were therefore preserved whilst the every
day use of the Plural caused it to be still further abbre
viated This conjecture is confirmed by the existence
of *u se r* as an older poetical form for *u re* The fifth
Gothic form *mma* is represented by *m* in Dat *him
tham wham* The *s* of *rus thus* has disappeared in
me the In the Feminine *hire thære* as compared
with the Gethic *thi o s* the *s* appears weakened still
further to *r* and the vowel from *o* to *e* In English as
the Dual is lost the third and fourth Gothic forms of
course disappear The rest is nearly in the same state
as in Anglo Saxon First person plural *us our* second
person plural *you your* The Anglo Saxon *e* before

vowels was pronounced *y*, and the *ow* probably *ó*, as in the vulgar pronunciation of *yó*, *yó-er*, for *you*, *your*, at the present day.   *Him*, which was both singular and plural in Anglo-Saxon, is now restricted to the Singular, and the Plural 'them' borrowed from 'that,' which has no variation of cases.   *Whom* answers to *hwám*.   The Feminine *r* is preserved in *her* for Anglo-Saxon *hire*.

In Greek *ἡμεῖς* or *ἄμμες* for *a-σμε-s*, and *ὑμεῖς* or *ὕμμες* for *υ-σμε-s*, exhibit the same particle, almost as complete as in Sanskrit; whilst in the Latin forms *no-s*, *vo-s*, it is much abbreviated.

147. The following instances of the Dative case in Pronouns illustrate the use of the particle *sma* :

	Sanskrit	Greek	Gothic	
Nom. Plu	ásmê	{ *ἡμεῖς* } { *αμμες* }	veis	we
Acc Plu	ásmân	*ἡμᾶς*	unsis	' us'
Instr. Plu.	ásmâbhis	——	——	' by us
Gen Plu	ásmâkam	*ἡμῶν*	unsara	' of us'
Nom. Sing	kásmâi	——	hvamma	(to) whom
Abl. Sing	yásmât	——	——	from whom'
Loc. Sing	tásmin	——	——	' in that'

The following list illustrates the Dative case :

	Sanskrit	Zend	Gothic.	English
m.	ázw-âya	azp-âi	vulfa	wolf
f	ázwêy-âi	hizvay-âi	gibai	' gift '
m.	pátay-ê	paithy-ai	gasta	guest
f	prí'tay-ê	áñitay-ai	anstai	——
m	súnáv-ê	pazv-ê	sunau	son
f	hánav-ê	tanu-y-ê	kinnau	chin
m.f.	gáv-ê	gav-ê	——	cow
f	vâch-ê'	vâch-ê	——	——
m	bhárat-ê	barent-ê	fijand	fiend
m	ázman-ê	azmain-ê	ahmin	——
n.	nâ'mn-ê	nâmain-ê	namin	name
m.	bhiâ'tr-ê	brâthr-ê	brôthr	brother
f	duhitr-ê'	dughdher-ê	dauhtar	daughter
m.	dâtr-ê	dâthr-ê	——	——
n.	váchas-ê	vachanh-ê	——	——

THE ABLATIVE SINGULAR.

148. Except in Sanskrit, Zend, and Latin, the *Ablative* has but few representatives. Its sign in the above languages is *t*, *d*, *d*, respectively.

In Sanskrit it is preserved only in the *a* stems. The vowel is lengthened to *â*, e. g. *vŕkấ-t*, 'from a wolf.'

In Zend *a* becomes lengthened, as in Sanskrit, before the ending, e. g. *vehrkấ-d*; *i* is gunaed, e. g. *áfritôi-d*, 'benedictione;' *u* assumes the forms *au*, *eu*, *v*, *av*, e. g. *anhau-d*, 'mundo,' 'from the world;' *mainyeu-d*, 'animo,' 'from the mind;' *tanau-d*, *tanv-ad*, or *tanav-a-d*, 'corpore,' 'from the body.' Consonant stems insert a connecting vowel, e. g. *ap-a-d*, 'aquâ,' 'from water;' *ârthr-a-d*, 'igne,' 'from fire,'

In old Latin inscriptions the vowel stems add *d*, and the consonant stems insert a connecting vowel *e*. e. g. *praid t-d, alto-d, mari i-d, senatu-d, dietatue-e-d*. The vowel of the *a* stem is not lengthened. But the long quantity of the final vowel in the Ablative Sing. of the first and second declensions, is probably a compensation for the loss of the consonant, i. e. *animâ* for anima-d, and *animô* for animo-d. The termination -*met* which occurs in some pronouns probably originated from the particle *sma*, as Ablative Sing. *á-smá-t* in Sanskrit, though *t*, in Latin, is irregular for *d*. *Med, ted*, though used as Accusatives, are probably original Ablatives, corresponding to Sanskrit *mat, tvat*. The conjunction *se-d* is the Ablative of *se*, and is used pronominally in *S. C. de Bacch*.

In Greek there are few instances, and in them the final *t*, as usual, appears changed to *s*, or dropped. These words are mostly adverbs, and Latin Ablatives have a similar adverbial use. The vowel before *s* is always long, and is made long even with consonant stems, e. g. ὁμῶ-*s*, · altogether; · οὕτω-*s*, 'thus; · ὥ-*s*, · as; · οὕτω, ὧδε, 'thus,' etc. = s. *smá-t* etc. So also σωφρόν-ω-*s*, 'wisely, etc. An instance of the preservation of δ preceded by a short vowel, as in Latin, is furnished by ἀφρο-δ-*ίτη*, if the meaning 'sprung from foam' is correct.

Gothic adverbs in *ô* furnish examples of an Ablative case, for *ô* = s. *â*, and final *t* is uniformly dropped, so that the termination -*ô* corresponds to s. *ât* in such words as *thathr-ô*, 'from there,' *hvathr-ô*, 'from where,' from stems in -*thura*, containing the expression for the comparative degree. The two adverbs in Anglo-Saxon answering to the above in meaning are differently formed, viz. *hwanon, thanon*. From these we have the

English words *whence, thence,* containing an additional adverbial ending. But many Anglo-Saxon adverbs in *-e,* being equivalent in meaning to the Latin Ablative, appear to be of this case, e. g. the first word in *micl-e mâre* = l. *mйlto magis,* 'much more.'

The following are a few instances of Ablative terminations:

	Sanskrit	Zend	Greek.	Latin	Gothic	Anglo-Sax
m	ázwâ-t	azpâ-d	ὅμω-ς	alto-d	hvathrô	micle
f	prí'tê-s	âfrîtôi-d	——	navale-d	——	——

THE GENITIVE SINGULAR.

149. Unlike the Ablative, the *Genitive* case is very extensively represented in various languages. In Sanskrit it assumes four different forms, viz. *sya, âs, as, s.* The first, *sya,* is employed with *a* stems, and one other word, the personal pronoun *amu,* e. g. *vṛka-sya,* 'of a wolf;' *ta-sya,* 'of this;' *amu-shya,* 'of that.' The second, *âs,* is used with Feminine stems which end in a vowel; but if the vowel *i* or *u* be short, either the second or the fourth form may be used. The same is the case also with monosyllables in *î, û,* e. g. *âzwây-âs,* 'of a mare;' *bhávanty-âs; vadhw-â's.* But *prí'tê-s* or *prí'ty-âs; hánô-s* or *hánw-âs.* The third form, *as,* is used with consonant stems, e. g. *pad-âs,* 'of a foot;' *vâch-âs,* 'of a voice.' The fourth form is used with masculine vowel stems, but *i* and *u* are gunaed, e. g. *prí'tê-s,* from prîti, 'favour;' *sûnô'-s,* from sûnú, 'son.' All these forms of the Genitive ending appear to be of the same origin, the variety being occasioned by the stems to which the form is applied.

The first form generally appears in Zend as, *hé*, e g. *vehrka-hé*; *túiryé-hé*, ' of the fourth.' The fuller form *hya* is also found, with the final vowel lengthened; *martiya-hyâ*, ' of man.' In Greek *y* becomes *ι*, and *s* is usually dropped between two vowels. The Epic form *οιο* answers therefore to the Sanskrit *a-sya*, as in λύκοιο, ' of a wolf,' τοῖο, ' of the;' and the subsequent omission of *ι* reduces the whole to *oo*, from which by contraction the Attic Genitive *ου* is formed, as in λύκου. τοῦ. Some dialectic forms have an additional *s*, as ἐμοῦς for ἐμοῦ, ' of me.' The same appears to be the case in the Genitive of the Latin pronouns *hu-jus*, ' of this,' *cu-jus*, ' of which,' where *jus* is supposed to be for *ju*, and this for *syu*. The Gothic and Anglo-Saxon have no remains of this fuller Genitive, but have reduced the ending of the *a* stems to the same form as the other masculine vowel stems, *s* : e. g. go. *vulfi-s*, *thi-s* : a. s. *wulfe-s*, *tha-s*; e. ' *wolf-'s*,' ' of the.'

The second form is in Zend *-âo*, e. g. *hizvay-âo*, *bavainty-âo*. The only indication of this form in Greek is where the vowel is long in the Genitive, though short in the Nom. and Acc., e. g. σφύρᾶς, ' of a hammer,' compared with σφῦρα, σφῦραν. So also in the old Latin forms *familiâ-s*, ' of a family,' *escâ-s*, ' of food,' *terrâ-s*, ' of the earth,' the vowel is long, though short in the Nominative. In Gothic the vowel is long in *gibô-s* from giba, and gunaed in *anstai-s* from ansti. In Anglo-Saxon *gife* the *s* is dropped, but the vowel lengthened from gifŭ. The same phenomena (i. e. the omission of *s* and the change of the vowel to *e*) appear in Gen. Sing. *thœ-re* compared with Gothic *thi-zô-s*.

The third form, *as*, appears in Greek as *os*, the regular form of the Genitive of the third declension; but it is

also extended to the *ı* and *ı* stems e g πoδ os   of a
foot   πoσι os   f a husband   ν κυ o   of a coıı e
In Latin the later form ıs *ı*   *ɣ ed ıs*   ot a foot   but
there ᴠ al o an older form *u*   e g *n mın us*   of a
name   Ĩ *eı ı*   of Venus   If the *ı* stem adopted
tnıs f ım   ıs ın Gıeek   the vowel wıs ɑtterward
 ho tened   but the *u* tems of the fouıth declen ıon
have the vowel lonₒ ın the Genıtıve whıch seems to
have aıısen fıom employın the thıɾd form of the
Genıtıve endınₒ   Hence Gen *exeıc tus* of an aımy
but Nom *exe c tu*   Indeed *exe cıtuu* ıs fɔund on
ınscııptıons and *seı atu os* ın the *S C de B ıcch*   The
Zend ɑlso has *o* (foı *a*) wıth *u* stem   e ₒ *daıhı o*
of a plɑce   ɑnd *danh ıı o* fıom *dɑnhu*   Even ın
Sanskrı *p ıty u* and *sal hy us* occur as Genıtıves of
patı ɑnd sakhı

The fourth form *s* ıs dısplaced by the thırd ın Gıeek
and partly ın Latın   thouₒh ıt ıs preseıved perhaps ın
such forms as *hostı s*   of ɑn enemɣ   We fınd ıt ın
Gothıc *gastı s* and An lo Saxon *gaste s*   guest s   It ıs
also as we have seen   extended ın the e two lanₒuaₒes
to the *a* stems

150 The followıng lıst contaıns ıllustıatıon ofthe
varıou forms of the Genıtıve endıng

	Sanskrit	Zend	Greek	Latin	Gothic	Ang Sax	English
m	ázwa-sya	azpa-hê	ἵππο-ιο	—	vulfi-s	wulfe-s	wolf's
m.	kâ-sya	ka-hê	—	cu-jus	hvi-s	hwæ-s	who-se
f.	ázwây-âs	hizvay-âo	χώρᾶ-ι	terâ-s	gibô-s	gife	'gift'
m.	pátê-s	patôi-s	(πόπ-ος)	hosti-s	gasti-s	gæste-s	guest's
f.	prîtê-s	âfitôi-s	(φθίσε-ως)	tuuri-s	anstai-s	—	—
m.	sûnô-s	pazeu-s	(νέκυ-ος)	pecû-s	sunau-s	suna	son's
f	hánô-s	tmeu-s	(γένυ-ος)	socû-s	kinnau-s	—	—
m f	gô-s	geu-s	βό-ός	bov-is	—	—	—
f	vâch-ûs	vâch-ô	ὄπ-ός	vôc-is	—	—	—
n	nâmn-as	nâman ô	τάλαν-ος	nomin-is	namn-s	naman	name's
n.	váchas-as	vachanh-ô	ἐπ(σ)ου	gener-is	—	—	—

THE LOCATIVE SINGULAR

151 The *Locative* case is expressed in Sanskrit and
Zend by *ι* in the *a* stems and the consonant stems   In
the first of these ases *a* and *ι* are contracted into *e* in
Sanskrit and to *e* or *oι* in Zend e g s *a ue* z *a pe*
s *nadhye* z *ιaιdhyoι* s *na mn ι* z *namaιn ι*

152 In Greek this form appears as a Dative case
and ι indicated by the *ι* added to consonant stems and
by *ι* sι *bscι ιptu n* with vowel stems e g χωρα λο *ιω*
πο δ   The Locative meaning is preserved in many
expres ions which have come to be regarded as adverbial
e σ Δωδωνι Μαραθων Σαλαμινι   at Dodona etc
αγρω afield   in the field   οικοι   at home   χαμαι
on the ground

The Latin Dative has *ι* with the consonant stems
where the length of the *ι* is probably the result of a
geneial tendency in the Latin language in which this
letter is almost always long when final   The *ι* is pre
served distinct in all the declensions in the older stages
of the lanouage e g *familιa ι* *populo ι* *ped ι*
fluctu ι ιe ι   In later times the first declension re
duced this ending to *e* making a diphthong with the
stem vowel as in *familιa e* (æ) and the second in
corporated it with the stem vowel which consequently
became long as in *populo* for populo ι   Some wiiters
also have *fluctu* for fluctu ι etc in the fourth declen
sion   The stem is not subject to the same amount of
modification a in Sanskrit

In Latin the Locative form is said to be used for
the Genitive ca e in the second declension where *ι*
appears as a contraction of *o+ι*   Both Bopp and Rosen
adopt this view of the Locative origin of the Latin

Genitive in the second declension. Yet it seems to do some violence to the general spirit of language. The meanings of the two cases lie very far apart, and the form *i* may be for *o + i* out of s. *a-sya*. This would make the proximate forms of both Genitive (*í*) and Dative (*ó*) to be the same, *o − i*. The reason for the difference in the ultimate forms may be that in the Genitive the case-ending represented by *i* was 'heavier' than the stem-vowel *o*; and therefore the sound of the former predominated when the whole was reduced to one syllable, and *í* was the result. On the other hand, in the Dative, the case-ending *i* being 'lighter' than the stem-vowel *o*, the sound of the latter predominated, and the *i* had no other effect on it than that of lengthening it to *ó*.

In this view the Greek and Latin forms harmonise together. In the Genitive the consonant stems have -*os* in Greek and -*is* in Latin. The Masculine and Neuter *a* stems have *ov* for *oo* from *o(σι)o* in Greek, and *í* for *oi* from *o(s)i(o)* in Latin. The Feminine *á* stems have -*s* preceded by *â* in Greek, and -*s* preceded by *â* in Latin (paterfamiliás). In the Dative the consonant stems have *ι* in Greek, and *í* (for *i*) in Latin; the Masculine and Neuter *a* stems have *ῳ* from *o + ι* in Greek, and *ó* from *o + i* in Latin; the Feminine *a* stems have *iota subscriptum* in Greek, and *e* (for *i*) in Latin.

153. One of the most unsatisfactory rules of Latin syntax is that which Zumpt (§ 398) expresses as follows : — 'In answer to the question *where?* the names of towns in the Singular, if of the first or second declension, are in the *Genitive*; if of the third, in the *Ablative* case.' The rule would be much simpler and more satisfactory if it could be thus expressed : — 'In answer to the question *where?* the names of towns in the Singular are in the *Dative* case.' At first sight

there are two objections to this — one in regard to
the meaning and the other in regard to the form of
the words in question   The usual *meaning* of the
Dative is not adapted to answer the question *where?*
If however the Latin Dative like the Greek Dative
is in reality the Locative case substituted in place of
the Dative the first objection disappears because it is
very likely that with the old form some remains of the
original meaning should be preserved   The objection
that the words in question are not in the *form* of the
Dative does not apply at all to the first declension for
Romœ is as much a Dative as a Genitive in form   In
the third declension the difference between *e* and *i* can
hardly be looked upon as determining the case in the
Singular for these letters not unfrequently change e g
hosti s and *hoste m* have the stem vowel as *i* in the one
case and as *e* in the other   Besides this the words in
question sometimes are found with the usual Dative
form *i* e g *Tibur i Carthagin i* meaning at Tibur
  at Carthage   There remains the second declension
But in the Singular the Datives *Abydo Corintho* etc
not unfrequently occur   It is only therefore in some
instances of the second declension that any real diffi
culty occurs as to the form and these are doubtless the
result of a false analogy which led Roman authors to
write words belonging to a case (Locative) of which
they had no consciousness like a case (Genitive) with
which they were well acquainted

  All these names of towns therefore of whatever
declension they appear with a Locative meaning may
be regarded as Latin Datives that is original Locative
cases   A few other words are similar in meaning and
admit of the same explanation i e *domi*   at home
ruri or *rure*   in the country *humi* or *humo*   on the

ground,' etc. Corresponding words in the Greek language which are clearly Datives (originally Locatives) confirm this view of the Latin words: οἴκοι, 'at home,' χαμαί, 'on the ground,' compared with *domi, humi*. Comp. Sect. **152.**

It is easy to see how this confusion arose. When the Locative case was generally employed as a Dative, the meaning appeared inconsistent with the idea that the words in question belonged to that case. They were, however, manifestly case forms, and were assigned to such other cases as they resembled. For instance, in the passage, *Romæ Consules, Carthagine Sufétes, sive judices, quotannis creabantur* ('At Rome Consuls, at Carthage Sufêtes, or judges, used to be appointed yearly'), as *Romæ* and *Carthagine* were supposed by their meaning not to be Datives, they were referred to the other cases which they resembled, i. e. Romæ to the Genitive, and Carthagine to the Ablative. The difficulty as to the meaning, however, was only altered, not removed, by this method; whilst referring these words to the Locative case fully justifies the sense in which they are employed.

154. There are three other forms of the Locative case in Sanskrit. The *first, âu,* is used with Masculine *i* and *u* stems, and sometimes with Feminines; but the stem-vowels *i* and *u* are dropped (except in *páty-âu, sákhy-âu*), e. g. *prí't-âu, sûn-âû.* This Bopp regards as really a Genitive ending, viz. *âu* for *âs.* The Zend has *ó,* which is also a Genitive form.

The *second* additional Locative form, *in,* is used only in the pronouns of the third person, e. g. *tásm-in,* 'in that;' *kasm-in,* 'in whom?' The third, *âm,* is used with Feminine stems ending in a long vowel, and sometimes with those ending in *i* or *u,* e. g. *bhiy-âm,*

' in fear.' Perhaps this form of the Locative is pre-served in such Latin expressions as *ante diem quartum Nonas Januarias,* ' on the fourth day before the Nones of January,' where the preposition *ante* governs *Nonas,* and *diem* means ' on the day.' The employment of the Locative in regard to time is not without example in other languages, e. g. s. *divasé,* ' in the day,' *nizi,* ' in the night;' gr. τῇ αὐτῇ ἡμέρᾳ, ' on the same day,' νυκτί, ' at night.' The similar use of the Latin forms *die, nocte, interdiu, noctu,* ' by day,' ' by night,' makes it probable that they were originally Dative, that is, really Locative cases. The Dative and Ablative forms fluctuate, not only in the cases quoted above, but also in the employment of both *vespere* and *vesperi* for ' in the evening,' *luce* and *luci* for ' during the day,' etc. The Ablative gradually absorbed these and similar meanings to itself, and the Ablative *form* was substituted where no preposition occurred, whilst the use of a preposition in such expressions as *ante diem quartum Nonas,* etc., caused forms in *m* which look like an Accusative to be preserved.

155. The following · is a list of instances of the Locative case :

	Sanskrit	Zend	Greek	Latin
m.	ázwê	azpê	ἵππῳ	equo
f	ázwây-âm	hizvay-a	χώρᾳ	equæ
m	páty-âu	——	πόσι-ι	hostî (1 + i)
f	prit-âu	——	πίρτι-ι	——
n.	vá ri-n-i	——	ἴδρι-ι	fidelî (1 + 1)
m	sûn-âú	——	νέκυ-ι	pecû (u + 1)
f.	hán-âu	——	γίνυ-ι	socrû (u + 1)
n.	mádhu-n-1	——	μέθυ-ι	pecû (u + 1)
m f	gáv-1	——	βοϝ-ι	bov-i
f.	vâch-í	——	ὀπ-ί	voc-i
m.	ázman-i	azmain-i	δαίμον-ι	sermon-i

	Sanskrit.	Zend.	Greek.	Latin
a	ná nm-i	námain-ı	τάλαν-ι	nōmin-ı
m	bhra'tar-ı	bráthr-ı	φρα⁻οο-ι	fratr-ı
f.	duhıtár-ı	dughdher-i	ᴣυγατο-ι	matr-ı
n	váchas-ı	vachah-i	ἔπι(τ)-ι	geñer-ı

THE VOCATIVE SINGULAR.

156. The *Vocative* has no distinctive sign. A few instances occur of the Nominative form being employed for the Vocative, i. e. in Latin neuters and in such words as *θέος, deus,* where the familiarity implied in the short Vocative form is not allowable. In some instances the stem-vowel is lightened: e. g. gr. ε and l. *e* of the second declension for *o* or *u.* In Sanskrit the accent is drawn back to the first syllable, and in some Greek words it is placed as far back as possible.

157. The modifications of the Vocative will be easily understood from the following list

	Sanskrit	Zend	Greek	Latin	Gothic
m	ázwa	azpa	ἵππε	eque	vult
n	dá'na	dâta	δῶοο-ν	donu-m	daur
f	ázwê	hızva	χώρά	equa	giba
m.	pátê	paitı	πόσι	hostı-s	gast
f	prí'tê	âfrîtı	πόρτι	turrı-s	anstaı
n	vâ'ri	vairi	ἴδοι	mare	——
m.	sû'nó	pazu	νέκυ	pecu-s	sunau
f.	hánô	tanu	γένυ	socru-s	kınnau
n	mádhu	madhu	μέᴣυ	pecu	——
m.f.	gâu-s	gâu-s	βοῦ	bu-s	——
f.	vâk	vâksh-s ?	ὄπ-ς	voc-s	——
m.	ázman	azman	δαῖμον	sermo	ahma ?
n	nâ'man	nâman	τάλαν	nômen	namô ?
m.	bhrâ'tar	brâtare	φρᾶτορ	fráter	brôthar
f	dúhıtar	dughdhare	ᴣύγατεο	mâter	dauhtar
n.	váchas	vachô	ἔπος	genus	——

THE NOMINATIVE PLURAL

158 The *Nominative Plural* in Sanskrit has the sign *as* e *gunan as irk as patay as* The *a* and *a* stems of course make the Nom Plur end in *as* and the *i* and *u* stems are gunaed

In Zend the original ending is represented by *az* when the conjunction *cha* is added In other cases *s* appears a *o* and *as* as *o* e g *a man a cha azman o* stones *iehik ao* wolves The gunaing of *i* and *u* stems is arbitrary One word preserves the original *s* when final viz *geu s*

In Greek the ending is *es* The *i* and *u* stems are not gunaed The *a* and *a* stems exhibit *i* making with the stem vowels *oi* and *ai* e g πατερ ες fathers ποσι ες husbands ιπποι horses χωραι lands

In Latin consonant stems have *es* with the vowel long The *i* and *u* stems are not gunaed but form with the ending *es* and *us* for *i es u es* The *a* and *a* stems form *i* and *æ* (for ai) which resemble the Greek *oi* and *ai* e g *patr es* fathers *host es* enemies *exercit us* armies *animi* minds *familiæ* families

In Gothic the ending is reduced to *s* in the consonant stems The *i* and *u* stems form with the endings *s (eis)* and *jus (yus)* where the stems may be regarded as gunaed since the guna vowel in Gothic is *i* the ending would then be *s* only as in the consonant stems Or *i* and *ju* may be regarded as lengthened forms of the stem vowel like the Latin *e* and *u* caused by the vowel of the ending The *a* and *a* stems have *os* which answers to the Sanskrit *as* e g *ahman s gastei s unju s vulfos gibos*

In Anglo-Saxon -*as* is preserved in Rask's second class
of the second declension, which includes all the Mas-
culine nouns not ending in *a* or *u*. Elsewhere the
Nominative Plur. ends in -*a*, including the stem-vowel,
e. g. *dag-as*, 'days;' *suna*, 'sons.' In English *s* still
appears as the sign of the Nominative Plural.

The ending of the Nom. Plur. *Neuter* presents some
difficulty. It appears generally as -*a*, e. g. l. *gener-a*,
etc. With *a* stems it would form -*â*, an equivalent
for which appears in some pronouns, e. g. l. *quæ*,
'which,' *hæ-c*, 'these;' go. *hvó*, *thó*; a. s. *hvâ*, *thâ*. In
the Latin forms *quæ*, *hæ-c*, the original ending -*a* is
reduced to *e*. In nouns, however, the long quantity
thus obtained is reduced to *â*. In Sanskrit this *a*
appears already weakened to *i*, which is connected with
vowel stems by *n*. If the stem-vowel be short, it is
lengthened, e. g. *dâ'nâ-n-i*, *vâ'rî-n-i*, *mádhû-n-i*, from
dâ'na, vâ'ri, mádhu.

This *a* Bopp regards as an abbreviation of the form
-*as* which appears in the Masculine and Feminine.
But the reason which is given for *s* never having been
used in the Singular will apply also to the Plural
Neuter. This *a* may therefore be regarded as the
original ending of Neuter nouns in the Nominative
Plural.

A peculiarity appears in the Nom. Plur. of the first
and second declensions in Greek and Latin—viz. instead
of -*as* we find *i* and *i* (e) added to *a* and *â* stems. The
same form appears in Sanskrit, Zend, and Gothic,
restricted, however, to pronominal stems in -*a*, e. g.
s. *tê* (for ta-i), z. *tê*, go. *thai*, e. *they*. Bopp regards this
i as an inorganic enlargement of the stem, and thinks
the case-ending to be entirely lost. But if we suppose
s of the original -*as* to be dropped, which is frequently

the case with final *s*, and *a* then weakened to *i*, as in
the Sanskrit Neuter nouns, we reach the same result
without supposing any step so arbitrary as enlarging the
stem without apparent reason.

159. The following list contains illustrations of the
Nominative Plural :

	Sanskrit.	Zend	Greek	Latin.	Gothic	Ang.-Sax.	English
m	áçvâs	—	ἴπποι	equi	vulfôs	wulfas	wolves
f.	áçvâs	hizvâo	χῶραι	equæ	gibos	gifa	gifts
n.	dânâ-n-i	dâta	δῶρα	dôna	dam a	dura	dôors
m.	pâtay-as	patay-ô	πόσι-ες	‘hostês	gasteis	gæstas	guests
f.	prîtay-as	âfrîtay-ô	πόρτι-ες	turrês	ansteis	—	—
n.	vârî-n-i	var-a ?	ὕδρι-α	mai-a	thrij-a	—	—
m	sûnâv-as	pazav-ô	νέκυ-ες	pectûs	sunjus	suna	sons
f.	hânav-as	tanav-ô	γένυ-ες	socrûs	handjus	handa	hands
n.	mâdhû-n-i	madhv-a	μέϑυ-α	pecu-a	—	—	—
m f	gâv-as	geus-s	βό-ες	—	—	eri	cows
m.	bhârant-as	barent-ô	φέροντ-ες	ferent-ês	fijand-s	fynd	fiends
m.	çazmân-as	azman-ô	δαιμον-ες	sermôn-ês	ahman-s	—	—
n.	nâ'mân-i	nâman-a	τόλαν-α	nômin-a	namn-a	naman	names
m.	bhrâ'tar-as	brâtar-ô	φράτορ-ες	frâtr-ês	brôthrjus	brôthru	brothers
f.	duhitâr-as	dughdhar-ô	ϑυγατέρ-ες	matr-ês	dauhtrjus	dôhtru	daughters
n.	vâchans-i	vachâo	ἔπε(σ)α	gener-a	—	—	—

THE ACCUSATIVE PLURAL.

160. The ending of the *Accusative Plural* appears to have been *ns*, of which letters, however, only one is usually preserved. In Sanskrit, vowel stems have *n* in the Masculine and *s* in the Feminine, e. g. *áẓuắn,* 'horses;' *áẓuás,* 'mares.' If the stem-vowel be short, it is lengthened, to compensate for the lost consonant. The consonant stems have *as*, in which *a* is either a connecting vowel or a substitute for *n*, e. g. *bhárat-as,* 'bearing.'

In Zend *-as* of the consonant stems is also extended to those in *i* and *u*, so that *n* occurs only with *a* stems without lengthening the vowel, e. g. *açpa-n,* 'horses.' When *s* and *as* are final, they are replaced, as usual, by *o* and *ó*, except in *gáu-s,* 'cows,' and *-evs* after *-ar* stems, which is equivalent to Greek *-ovs*.

In Greek, again, *n* does not appear at all, but *s* universally. *as* is applied to the *i* and *u* stems as well as to those in consonants. The terminations are *-ás* in the first declension, with *á* stems; *-ovs* in the second declension, with *a* stems; and *-as* in the third declension, with consonant and *i* and *u* stems. *-ovs* corresponds to the same letters in *-ovσι* of the third person plural of verbs, where, e. g., *τύπτουσι,* 'they strike,' is for *τυπτονσι,* and this for *τυπτοντι.*

In Latin also *s* is universally preserved, and *n* not at all. The terminations are *-ás*, *-és*, in the first and fifth declensions, with *á* stems; *-ós* in the second, with *a* stems; *-és* in the third, with consonant and *i* stems: and *ús* in the fourth, with *u* stems. In the third declension ês probably includes the stem-vowel *i*, and the consonant stems have irregularly adopted the long

vowel instead of the short as in the Nom Plur thus presenting *es* for Sanskrit *as*

In Gothic which in this case presents an older form than even the Sanskrit both consonants are preserved in the *a i* and *u* stems but *s* only in the *a* and consonant stems   In the last case however *s* is not preceded by *a* as in the other languages e g *fijand-s* foes   *gasti is* guests

In Anglo Saxon the Accusative has the same forms as the Nominative and probably presents no evidence of the original form of the Accusative

161   The following is a list of Accusative

	Sanskrit	Zend	Greek	Latin	Gothic	English
m.	áçwâ-n	açpa-n	ἵππο-νς	equô-s	vulfa-ns	wolves
f.	áçwâ-s	hizvâ-o	λόρά-ς	equâ-s	gibô-s	gifts
m.	páti-n	paithy-ô	πόσι-ας	host-ês	gasti-ns	guests
f.	pri'ti-s	âfrithy-ô	πόρτι ας	taur-ês	anstu-ns	—
m.	súnû-n	pazv-ô	υἷαν-ας	pecû-s	sunu-ns	sons
f	hánû-s	tanv-ô	γένυ-ας	socrû-s	handu-ns	hands
m.f.	gâ-s	gâu-s	βô-ας	bov-ês	—	cows
f	vâch-as	vach-ô	ὄπ-α	voc-ês	—	voices
m	bhânt-as	barent-ô	φέροντ-ας	ferent-ês	fijand-s	fiends
m.	ázman-as	azman-ô	δαίμον-ας	sermon-ês	ahman-s	—
m	bhrâtf-n	brâtn-eus	φράτορ-ας	fiatr-ês	brothar-s	brothers
f.	duhitr'-s	dughdher-eus	Θυγατέρ-ας	matr-ês	dauhtar-s	daughters

THE INSTRUMENTAL PLURAL

162 The *Instrumental Plural* in Sanskrit ends in *bhis* e g *ra ibhi* from vari   water   But with *a* stems the initial consonant is dropped   and the case ending reduced to *is* e g   *ivais* for ziva is from ziva

fo tunate   where the stem vowel is lengthened   In Zend *a* stems have *is* and others *bis*   This case and its sign have disappeared from several later lan_uages

Sa	kr t m	w		f	w	bh	m p ti	bh s	f p	t bh s
Zend		a p			h	b s		p t b		f t b s
S n k t m	u u bh	f		bh		m az	bl s	n vach	bh s
Ze d		p u b		au b		a⁄ma b		vache b s	

THE DATIVE AND ABLATIVE PLURAL

163 These two cases have one and the same form It is in Sanskrit *bhyas* Zend *byo* Latin *bus* and Gothic *-m* (Dative only)   The *a* stems in Sanskrit change *a* to *e* in Zend they change *a* to *au* and in Latin have *is* including the stem vowel   The consonant stems take a connecting vowel *i* in Latin The stem vowel *u* is also weakened to *i*   The first declension of *a* stems also reduces the case ending to *s* The Lithuanian has *mus* and later *ms*   Through similar changes perhaps the Goth c has passed   and has ultimately retained only *m*   The Anglo Saxon ha   *m* in the Dative Plural of nouns   where *m* is always preceded by *u*   whatever may have been the original stem vowel   In English there is a remains of this case probably in the pronouns *hi-m* (now restricted to the Singular) *uho ri   the m*   Anglo Saxon *him* (both Singular and Plural) *hi a m   tha m*

For the Greek Dative   see the Locative case below

164 The following list will serve for illustration

	Sanskrit	Zend	Latin	Gothic	Ang.-Sax.
m	ázwê-bhyas	azpaii-byô	equi-s	vulfa-m	wulfu-m
f	ázwâ-bhyas	huzvâ-byô	equâ-bus	gibô-m	gifu-m
m.	páti-bhyas	paiti-byô	hosti-bus	gasti-m	gæstu-m
f.	príti-bhyas	áfriti-byô	turri-bus	ansta-m	—
m.	súnú-bhyas	pazu-byô	pecu-bus	sunu-m	sunu-m
f.	vâg-bhyás	—	vôc-i-bus	—	—
m.	bhárad-bhyas	baren-byô	ferent-i-bus	frijandu-m	feôndu-m
m.	ázma-bhyas	azma-byô	sermôn-i-bus	ahma-m	—
m.	bhrât-bhyas	brâtar-e-byô	frât-r-i-bus	brôðar-u-m	broðhru-m
n.	váchô-bhyas	vache-byô	gener-i-bus		

165 The sign of the *Genitive Plural* is in Sanskrit
-*am* in Zend *anm* in Greek *ων* in Latin *uri (um)*
in Gothic *e* and in Anglo Saxon *a*

ᴵn Sanskrit *n* is inserted between vowel stems and
the case ending   Pronouns of the third person how
ever have *s* in place of this *n*   Monosyllabic vowel
stems develope a corresponding half vowel instead of
inserting a consonant   The vowel before the inserted
n or *s* is always made long e g *pad a m*   of feet
azua n am of horses   *ta s am* of these   *gaj am*
of oxen

In Zend the vowel is short and the nasal appears as
nm   The same consonant is inserted as in Sanskrit
but a preceding short vowel is not lengthened   Polysyl
labic *u* stems also change *u* to *v* instead of inserting a
consonant e g *azpa n anm*   of horses   *aitai sh anm*
of these   *gav anm*   of oxen   *pazv anm*   of cattle

In Greek no connecting letter is inserted   but the
ending is affixed immediately to either consonant or
vowel stems   and *a* of the stem is incorporated with the
termination e g *ποδ ω*   of feet   *ππ ων*   of horses
τ ων   of the   *βο ων*   of oxen

In Latin the third and fourth declensions embracing
the consonant and *i* and *u* stems   add the ending imme
diately to the stem e g *ped um*   of feet   *hosti um*
of enemies   *exercitu um*   of armies   The first
fifth and second declensions embracing the *a* and *a*
stems   insert *i*   which is   the Latin equivalent for
Sanskrit *s* between two vowels *equa i um*   of mares
re i um   of things   *equo i um*   of horses

In Gothic *n* appears only with the *a* stems   and *s* is

*

softened to *z*. The latter occurs only in pronouns and strong adjectives, e. g. *(gibó-n-ó)*, 'of gifts;' *thi-z-é* Masc, *thi-z-ó* Fem , 'of these;' *blindai-z-é* Masc., *blindai-z-ó* Fem., ' of the blind.' The half-vowel *u* is developed in the *u* stems, which are gunaed, whilst the vowel of the *a* and *i* stems is dropped or, incorporated with the termination, e. g. *suniv-é*, ' of sons;' *vulf-é*, ' of wolves.'

In Anglo-Saxon -*a* is connected with Feminine vowel stems by *n*; and the pronouns *thá-r-a*, *this-s-a*, exhibit remains of the original *s* as it appears in Sanskrit.

166. The Greek and Latin forms of the Genitive Plural supply a strong reason for regarding *s* as the consonant originally inserted in all instances. The change from *s* to *n*, as in Sanskrit, will be more fully discussed on a subsequent occasion. The absence of this consonant in Greek is consistent with the general tendency of the language which causes *s* to disappear between vowels. In Latin also, as a rule, *s* becomes *r* in the same position. Hence the use of *r* in the Genitive Plural of the first, second, and fifth declensions. The remains in Gothic and Anglo-Saxon also are in harmony with the view of *s* being the original consonant.

167. The following list includes the above modifications of the Genitive Plural :

	Sanskrit	Zend	Greek	Latin.	Gothic	Ang.-Sax	English
m	lízwâ-n-âm	azpan-unm	ύππ-ων	equô-i-um	vulf-ê	wulf-a	wolves'
f	ázwâ-n-âm	hizva-n-aûm	λ^υρ-ῶν	equâ-i-um	(giљ-ə-n-ô)	gifc-n-a	gifts'
m n	tsí-n-â m	thry-aûm	τρι-ῶν	tri-um	thrij-ê	threo-i-a	'of three'
m.	páti-n-ôm	paiti-n-anm	ποσι-ων	hosti-um	gast-ê	gœst-a	g tests'
f	pri'tî-n-âm	áfiáti-n-anm	πορτί-ων	turi-um	anstê	———	———
n.	vâri-ṇ-âm	vairi-n-anm	ίδρι-ων	mari-um	———	———	———
m.	súnû-n-âm	pazv-anm	νεκύ-ων	pecu-um	sunıv-ê	sun-a	sons'
f	hánû-n-âm	tanu-n-anm	γενύ-ων	socru-um	handiv-ê	handt-a	hands'
n.	mâdhû-n-â m	madhu-n-anm	μεϑύ-ων	pecu-um	———	———	———
m.f.	gáv-âm	gav-anñ	βο-ῶν	bo(v)-um	———	eu-a, eu-n-a	cows', of kine
f	vâch-â m	vâch-anm	ὀπ-ῶν	vôc-um	———	———	———
m n	bhárat-âm	baṛent-anm	φεριντ-ων	ferent(i)-um	fijand-ê	feônd-a	fiends'
m.	ázman-âm	azman-anm	δαμόι-ων	sermôn-um	ahman-ê	———	———
m.	bhrâtî-n-âm	brâthr-anm	φρατόρ-ων	frâtr-um	broþr-ê	brodhr-a	brothers'
f.	duhitî'-ṛ-âun	dughdher-anm	ϑυγατέρ-ων	mâtr-um	dauhtr-ê	dôhtr-a	daughters'
n.	váchas-âm	vachanh-anm	ἐπέ-ων	genei-um	———	———	———

THE LOCATIVE PLURAL.

168. The *Locative Plural* has disappeaied from several languages. Its sign is in Sanskrit *su*, in Zend *-hu*, and in Greek *-σι*.

In Sanskrit the laws of euphony change *-su* in certain cases to *-shu*. The same takes place in Zend, where we find *-shia* and *-hva*, which makes it piobable that in Sanskrit also the original form was *-sua*. In Greek *i* is added to the *a* and *â* stems, as in Sanskrit it is to the *a* stems. A connecting vowel, *ε*, is sometimes added to the *i, u,* and consonant stems in Greek; and the forms ending in *-σσι* perhaps contain the half-vowel which appears in Zend, assimilated to the preceding consonant. Therefore *-σσι* is for *σîι*, corresponding to Sanskrit *-sva*. In later times the final *ι* was dropped in the first and second. i. e. the *â* and *a* declensions. In *-σιν* of the thiid declension *ν* is inorganic.

169. The following is a list of Plural Locatives:

	Sanskri*	Zend	Greek
m.	ázwê-shu	azpai shva	ἵπποι-σι
f	ázwâ-su	hizvâ-hva	χ ώοαι-σι
n	dâ nê-shu	dâtai-shva ⁹	ἐύροι-σι
m.	páti-shu	paiti-shva ⁹	τύσι-τι
f.	pri'ti-shu	âfriti-shva	−ύρ-ι-σι
n.	vâ'ri-shu	vairi-shva	ἴαρι-σι
m.	sûnú-shu	pazu-shva	γεκυ-σι
f	hánu-shu	tanu-shva	γένυ-σι
n.	mádhu-shu	madhu-shva	μέẑυ-σι
m.f.	gô'-shu	gau-shva	βου-σι
f.	vâk-shú	vâkh-sva ⁹	ὀτ-σί
m n.	bhárat-su	——	φέρου-σι

K 2

	Sanskrit	Zend	Greek
m.	ázma-su	azma-hva	δαίμο-σι
n	nâ'ma-su	nâma-hva	τάλα-σι
m.	bhrâ'tr-shu	brâtar-e-shva	φράτορ-σι
f.	duhitŕ-shu	dughdher-e-shva	θυγατρά-σι
n.	váchas-su	vachô-hva	ἔπεσ-σι

DUAL.

170. The *Dual* has but three forms for the eight cases, and appears only in the declension of the Sanskrit, Zend, and Greek.

THE NOMINATIVE, ACCUSATIVE, AND VOCATIVE DUAL.

These three cases have for their sign in Sanskrit *-âu*, in Zend *-âo*, and in Greek *-ε*.

From the Sanskrit and Zend it appears probable that *-âs* was the original form, and a confirmation of this is found in such Zend words as *hurv-âož-cha*, where the *s* (necessarily changed to *z* before *ch*) is preserved. The Veda forms have only *-â*. This is further reduced to *-i* in the Sanskrit Neuter stems, as well as in the Feminine *â* stems, whilst the *i* and *u* stems merely have their vowel lengthened, except monosyllables, which develope a half-vowel and take *âu*.

In Zend *-a* appears as well as *-âo*. The Masc. and Fem. *i* and *u* stems have the stem-vowel lengthened without any further addition, and the Neuters, as well as the Feminines in *â*, have only *i* added.

In Greek the stem-vowel in the *â* and *a* stems is lengthened only. Elsewhere the case sign is *ε*.

All these may be regarded as successive abbreviations of the original *-âs*.

171. The following list exhibits the different forms :

	Sanskrit	Zend	Greek
m	ázw-âu or â	azp-âo or a	ἵππω
f	ázw-ê	hizv-ê	χωού
n	dân-ê	dât-ê	ἰωοω
m	páti	paiti ?	τόσι-ε
f	pri ti	âfriti ?	πόστι-ς
n.	vàri-n-î	——	ἴϲρι-ε
m.	sûnú'	pazû	νὲκυ-ε
f	hánù	tanû	γένυ-ε
n	mádhu-n-î	madhv-i	μέϑυ-ε
m f.	gâv-âu or â	gâv-âo or a	βó-ε
f	vâ'ch-âu or â	vâch-âo or a	ὔπ-ε
m	bhárant-âu or â	barant-âo or a	νέροντ-ε
m	ázmân-âu or â	azman-âo or a	ἵαιμϳν-ε
n	nâ'mn-î	namain-i	τά\αν-ε
m	bhrá'tar-âu or â	brâtar-âo or a	οϲατορ-ε
f	duhitár-âu or â	dughdhar-âo or a	ϑυγατέρ-ε
n	vâchas-î	——	ἔ-ε(ϲ)-ϲ

THE INSTRUMENTAL, DATIVE, AND ABLATIVE DUAL.

172. The ending for these cases is in Sanskrit -bhyâm, in Zend -bya, and in Greek -ιν.

The stem-vowel -a is lengthened in Sanskrit and becomes -aii or ói in Zend. In Greek the older form was -φιν, which caused the connecting vowel in the i, u, and consonant stems to be o instead of ε, in accordance with the general law in Greek which requires the connecting vowel to be o before Labial consonants. The change of an original final m to ν in Greek is usual.

The fuller form, -byanm, is preserved only in one word in Zend, viz. brvad-byanm, 'THE UNIVERSITY brows.'

The following list is sufficient to illustrate these forms :

Sanskrit	Zend	Greek
m. áźwâ-bhyâm	azpâii-bya	ἵππο-ιν
m páti-bhyâm	paiti-bya	ποσί-ο-ιν
m bhárad-bhyâm	baran-bya	φερόντ-c-ιν

THE GENITIVE AND LOCATIVE DUAL.

173. In Greek the *Genitive* has the form of the Dative. In Zend there are but few instances of the Genitive and Locative. The ending appears as *ó*, e. g. *anhv-ó*, 'in the two worlds;' *zaçtay-ó*, ' of the (two) hands.'

In Sanskrit the form is -*ós*, and is extensively represented, e. g. *ázway-ós, páty-ós, hánw-ós, vâch-ó's*. The *ằ* stems change this vowel to *ay*. The Masc. and Fem. *i* and *u* stems change their vowel to *y* and *w*. The Neuter *i* and *u* stems insert *n*, e. g. *vá⸳ri-n-ós, mádhu-n-ós*.

VII. ADJECTIVES.

174. The declension of adjectives is the same as that of substantives, but they are subject to other changes of a peculiar character. They differ from substantives, which are the names of things, in expressing the *qualities* by which things are distinguished. These qualities may exist in a greater or less, in the greatest or least degree. This difference is denoted by terminations peculiar to adjectives. The terminations which denote more or less are usually called *Comparative,* and those which denote most or least, *Superlative.*

In Sanskrit the comparative is generally indicated by *-tara,* and the superlative by *-tama*; sometimes by Comp. *-îyâns,* and Sup. *-ishtha.* The first forms are affixed to the stem of the positive, e. g. *pûnya-***tara**, *pûnya-***tama**, from *pûnya,* 'pure;' *mahát-***tara**, *mahát-***tama**, from *mahát,* 'great.' The second forms cause the omission of the formative syllable, and sometimes even more than that, in the positive to which they are affixed, e. g. *mát-***îyas**, *mát-***ishtha**, from *matimát,* 'intelligent;' *bál-***îyas**, *bál-***ishtha**, from *bálavat,* 'strong.'

The first forms in Zend are *-tara* and *-tema,* and are affixed to the Nominative case of the positive, not to the stem as in Sanskrit, e. g. *huskô-***tara**, from *huska,* 'dry;' *zpentô-***tema**, from *zpenta,* 'holy.' The second

foims a e *ja* Fem *yelı* ınd *ı ta* e g (ɱaz yoⱼ
ma **yehı** and *ıa* **ısta** from *n a*   ₌reıt

175 In Gıeek the first foims aıe τερο τατο added
to the stem of the positıve whose final shoit vowel
howeveı ıs lenₔthened ıf pıeceded by a shoıt yllable
e g δ *wo* τερο s δ *wo* τατο s from δ *wo*   tenıble
but-σοφω τερο s σοφω τατο s from σοφο wıse   The
second forms are *ıον ıστο* ₛ   In *ıo ı* ıepresents the
ᕙanskıı *ıy* and *ον* the ᕙan kııt *c n* the *a* of which
bec me short also ın ᕙanskııt ın the weak ca es   The
 pecıʋl form for the Femınıne of the compar tıve whıch
ıs ın Sankııt anᵈ 7en1 dısʋppeırs e σ Gen ᶆ F
ⱼδ *ı ον* s ηδ *ıστο* s ıromⁿη δ   sweet   In the ᕙuper
lʋtıve *ıσ* coıresponds to the ᕙan kııt *ısⁿ* and ı the
contracte 1 form of the compaıatıve *y ı* ıs f om whıch
an dısappeaıs and *y* ı vocalı ed   Wıth dental and
guttural stems we find the compaıatıve termınates ın
 σσω ıncludınᵒ the tem consonʋnt   The half vowel
probably at first pıoduced so ıe such chanₔe ın the
sound of the consonʋnts as we see effected by *e* and *ı*
ın the Enᵒlısh pıonuncıatıon of Gıeek and Latın woıds
e g *natıon c ıta* ⱼ*ıⁿn* wheᵣe *tı* = *h* and *gı* = ⱼ   If the
chanₔe were mʋde at once to the dental bılant ıt
would resemb e the French modıficatıon of Gıeek and
Latın woıds foı ın the Fıench pronuncıatıon of *ıatıon*
t = *s*   Hence we havᴄ the coıpırʋtıves *κρεισ σων*
from *κρατ* s stıonₔ   *β σ σων* from *βa*ϑ *vs* leep
γλυσ σων fıom *γλ* ⱼ *vs*   sweet   *βρασ σων* fıom
βραχ vs shoıt   Both the stem consonant and the *ι*
of the compʋatıve are repıesented ın the two sıₔmas
In (*μ ι*ζ*ων*) Ionıc *μ*ε*ζων* from *μεγas* g ea   ıt ₛ not
however so easy to tıace them   Pıobably the pro
nuncıʋtıon of ζ was such as to ıepıesent the effect

produced by the combination of γ and ι, the spelling being then adapted to the pronunciation, as would be the case if we were to write *contajon* instead of *contagion*.

176. In Latin the comparative is taken from the second forms, and the superlative from the first. The comparative is formed by *ιόr*. At an earlier stage in the language it was iôs, of which a few remains are still preserved, e. g. *ma*-**jòs**-*ibus*, *mel*-**iôs**-*ibos*, in Festus. The Latin and Greek forms of this comparative supply each other's defects, the former dropping the nasal and preserving the sibilant (*ιός* for s. *γά*(*n*)*ς*), and the latter dropping the sibilant and preserving the nasal (*ιον* for s. *γαn*(*s*)). The Latin also preserves the long quantity of the vowel which has been shortened in Greek. The Neuter Nom. and Acc. Singular, having a short vowel and the preserved sibilant, very closely resemble the Sanskrit form, i.e. l. *mel*-**ius**, s. *mât*-**iyas**. The Latin superlative form is *tumu*, later *timu*, and is an exact representative of the Sanskrit *tama*. The *t*, however, changes to *s* after gutturals, e. g. *op*-**timu**-*s*, 'best;' *maximus* (*mag*-**simu**-*s*), 'greatest.' It is also assimilated to *l* and *r*, e. g. *facil*-**limu**-*s*, 'easiest;' *pulcher*-**rimu**-*s*, 'most beautiful.' Those superlatives which end in -*issimus* are probably formed from *is* and *simu*-*s*, the former of which corresponds to Sanskrit *ish*, the contracted form of the comparative *iyas*. We have thus the comparative of the second forms followed by the superlative of the first forms to make a compound superlative. The Greek superlatives in εσ-τατος and ισ-τατος are capable of the same explanation. The comparative of the first forms, though not used in the ordinary declension, occurs in several Latin prepositions, e. g. *in*-**ter**, 'within;' *præ*-**ter**, 'without;' *prop*-**ter**,

on account of   as well as in *sub* **ter**   under   *abi* **ter**
in p ssing   where the original   *tai a*   is reduced to
ter

The second forms are employed almost exclusi ely
in the Germanic language

177 In Gothic the comparative is *i*   or *o* when
followed by a vowel   and *is* or *os* when final   in which
the original syllable is still further reduced than we
find it in Greek or Latin   *i*   is = Sanskrit *ish* for *iyas*
employed in forming th superlative   and *rs* resembles
the Latin *ios*   but with the loss of the first vowel   *is*
occurs in adverbs e g *i a* **is**   mo e   *hauh* **is**   hi her
In son e case *i* is dropped   *min* **s**   less   *tai* **s**
wor e   from which *iri* **siza** is formed lik   the
English   *vo i* **ser**   In Greek and Latin we saw the
comparative and superlative united in one form   i e
in *εσ τα os* and *is sin ius*   we have here the comparative
used twice in the same form   *se th* **s**   later   since
The addition of *an* in the ordinary declension causes
the *s* to become   e g   *ma* **iz** *an*   greater   The
Feminine has a special form   as in Sanskrit and
Zend e g *ma i ei n*   greater   The following are
instances of the less usual form   *o*   *iinth* **oz** *an*
stronger   *fiod* **oz** *an*   more prudent   *fium* **oz** *an*
earlier   And of adverbs in *o*   *si iumi i l* **os**
(σπουδαιοτέρως)   more carefully   *aljaleil* **os** (*τ ρως*)
otherwise

The formative syllable of the posi ive is dropped as
in Sanski t e g *si t i a*   sweeter   compared with
s *suad* **u** *s hai d i a*   harder from *hai d* **u** *ieil i a*
richer fiom *ieil* **ja**

In Engli h the original *s* which in Gothic i ie
duced to between vowels is still further softened to
r whilst the stem is subject to the same curtailment as

in Gothic. The above examples furnish an i lustration
of both points, i. e. *sweet*-**er**, *hard*-**er**, *rich*-**er**. In the
last word the softening of the original guttural to *ch*
was probably the effect of the half-vowel which be-
longed to the adjective stem, as seen in the Gothic
reik-ja.

The Gothic superlative is formed by -*ista*, which
corresponds to s. *ishtha* and gr. *ιστο* of the second
forms, e. g. *minn*-**ist**-*s*, 'least.' The usual form in
English is -*est*, e. g. *great*-**est**.

178. The first forms are applied to a few pronouns
which imply a comparison with one or more others. Even
those languages, viz. Latin and Teutonic, which have
not preserved the forms in adjectives, have preserved
them in these pronouns. In Sanskrit *ka*-**tará**-*s* means
'which of two;' *ka*-**tamá**-*s*, 'which of several;' *éka*-
tará-*s*, 'one of two;' *éka*-**tamá**-*s*, 'one of several.'
In Greek, *πό-τερο-s*, 'which of two:' *ἑκά-τερο-s*. 'one
of two;' *ἕκα-στο-s*, 'each:' differing in both termi-
nation and meaning from the Sanskrit. In Latin, *u*-**ter**,
'which of two;' *al*-**ter**, 'another;' *cœ*-**teru**-*s*, 'the
other.' In Gothic, *hva*-**thar**, 'which of two;' *an*-**thar**,
'another.' In Anglo-Saxon, *hwæ*-**dher**, *ó*-**dher** (for an-
dher), *á*-**dher**, 'one of two;' *æg*-**dher**, 'either ' (*g* for
gh). In English, *u he*-**ther**, 'which of two' (*uhe* for
hwe = s. *ka*); *o*-**thér** (*o* for *an*, same as *al* in Latin
al-ter, and *an* in Sanskrit *an-yá*), *ei*-**ther**, 'one of two,'
(*ei* for Sanskrit *éka*).

179. The ordinal numerals are formed in a similar
way. The second has the comparative, and the rest
the superlative ending, e. g. s. *dwit*-**i'ya**, gr. *δεύ-τερο -s*,
l. *al*-**ter**. The word *secundus*, meaning 'following,' is of
later use, from the verb *sequor*. The superlative ending
appears as -*tama* in s. *vinzati*-**tamá**-*s*, 'the twentieth;'

— as *ta* n s *chati* **tha** or πρω το s τ ταρ το s
etc l *quaɪ* **tu** s *quɪ ɪ* **tu** s etc ͜o *fi nf* **ta** etc a
fif **ta** etc e *fou* **th** *ɲf* **th** etc —as *maɪ*n s *paɪcha*
ma s ͜ βδο μο s l p **mu** s *septɪ* **mu** s   go
fɲu **m** s   first   ɪ s *fo* **ma** e *fo* e **mo** st with two
superlatives united a the comparative is repeated in
ɪʋo s *eɪ* and as the superlativ is followed by the
comparative in *fo n eɪ*

VIII. NUMERALS.

180. The formation of the Cardinal Numerals is still somewhat obscure. The forms which remain in the Indo-European languages were evidently of identical origin. But the nature of the changes which some have undergone, and the original elements themselves, still require explanation.

181. (1.) The word for *one* in Sanskrit is *é'-ka* = ai-ka; Zend *ai-va*. Greek (*oi-vo-s*)*oi-o-s* and *ἕν* (for *oi-v-*); old Latin *oi-no-s*, later *û-nu-s*: Gothic *ai-na*; Anglo-Saxon *án* : English *one*. The half-vowel *w*, which is heard at the beginning of the English word, was probably also heard in Gothic and Anglo-Saxon, just as another half-vowel, *y*, is heard in the Scotch pronunciation of the same word; and we have in this an easier explanation of the *w* in the Lithuanian word *wé'-na-s*, than by supposing, as Bopp does, that it is for an original *ni*, and making the word for 'one' to be *mé'-nas*, meaning 'little.' ⬤The origin of the gr. *μία*, *μόνος*, and the Armenian *mino*, is too obscure to be relied upon for the explanation of the Lithuanian *wé'nas*. The second part of the Sanskrit *é'-ka*, · one,' Bopp thinks, is preserved in the following Gothic words as *ha*, viz. *haihs*, stem **ha**-*iha*, corresponding to the Latin *ca-icu-s, cœ-cu-s*, ' one-eyed,' 'blind;' **ha***lts*, from

ha lıthı   one leg°ed   lame   *ha*lt   **ha** *ıfs*   from
ha nıfa   one handed   (*nıfa* = Scotch *nıeve*   hand)
halbs from *ha* lıba   of one part   *half*

182   (2) The woıd for *two* ıs ın Sanskrıt and
Zend *dwa*   Greel δνω δ *o*   Latın *duo* declıned wholly
or ın part as duals   Goth *twaı* ınd Anglo Saxon *twa*
declıned as pluıals   Enₒlısh *tı o*   In composıtıon thıs
word ıs reduced ın Sanskrıt to *dwı*   Greek to δι   Latın
and Zend ṭo *bı*   the *d* beınσ dropped and *u* chanₒed to
b as ın *b* ellum for *dı* ellᵘm   Gothıc *tıı*   Anglo
Saxon *uı*   Englısh *tı ı* e   **twı** *lıƒht*   The adverbıal
forms aıe s *duı*   gr δ *s* l *bı* (ı s hıs t vawı) e *tı ıce*
In Enₒlı h the final *e* only ındıcates that *c* stands foı *s*

183   (3) The word foı *tl ee* ıs ın Sanskrı *trı*
ın Zend ınd Gothıc *thıı*   In Zend the aspırate *th* ıs
occısıoned by the letter ı   The declensıon ıs regular
The ı ḅecomes *ŋ* ın Gothıc befoıe vowel endıngs and ın
Sanskrıt the Genıtıve *t aya n a m* ıs fo med from *tıaya*
In both Sanskrıt and Zend the Fem nıneı formed from
the stem *tısaı*   In Gıeek Ṃ F τρεις N τρια   ın
Latın Ṃ Ṛ *tıes* Ṇ *tııa*   both declıned as pluıals   In
Gothıc *th* ı and ın Anₒlo Saxon *th eo* ıs a pluıal   In
Englı h *thıee*

184   (4) *Fouı* ıs expıessed ın Sanskııt bv *chatwaı*
ın weak cases *chatıı* and Femınıne *chat ı aı* ın Ze ıd
bv *chathwaı* weak cıses *chath ıı* ın Gıeek by τ ταρ *s*
τ σσαρες Æol τεσ ρες Homerıc πισυρες ın Latın by
quattuoı qı ıdıı u ın compₒsıtıon ın Gothıc by *ƒıd oı*
ƒıduı ın coınposıtıon ın An lo Saxon by *feoueı* both
sepaıately and ın composıtıoı ın Enₒlısh by *fouı*
sometımes *foı* ın composıtıon   The fııst three of these
languages ıeₒularly declıne hıs numeral   but the Sans
krıt and Zend ınseıt *n* ın the Genıtıve as wıth vocal
stem   In Gıe k the ınıtıal τ corresponds to Sans *ch*

but τ is an unusual deviation. The double consonant results from assimilation, i. e. ττ for *tw*. In Latin the guttural initial stands for Sans. *ch*, and *w* is vocalised to *u*; whilst in the Ordinal **quar**-*tus* the whole is abbreviated similarly to the English in **for**-ty. In Gothic the initial *f* is the regular representative of the gr. π.

185. (5.) For *five* we have in Sanskrit *pánchan*: Zend *panchan*; Greek πέμπε, πέντε; Latin *quinque*: Gothic *fimf*: Anglo-Saxon *fíf*; Engl. *five*. The final nasal of the first two is perhaps inorganic. In the Greek forms there are both π and τ for the Sanskrit *ch*, as in the number four. In Latin there is the guttural for *ch*, and also for the initial *p*. The Gothic follows the Greek in having labial consonants. This word is declined only in Sanskrit and Zend, and there not in Nom., Acc., and Voc.

186. (6.) The word for *six* is in Sanskrit *shash*, in Zend *khsvas*; Greek ἕξ; Latin *sex*; Gothic *saihs*. Anglo-Saxon *six*; Engl. *six* — all undeclined. As *sh* is a derived sound and begins no other word in Sanskrit, it may originally have been preceded by the guttural which is preserved in Zend; and Bopp thinks the other forms are transpositions for *xes*, etc. Hence s. *kshash*, Latin *kses*, etc. The Greek aspiration is here, as in many other instances, for an original sibilant. Gothic *h* stands regularly for an older *k*, which in English has been reduced again to the earlier form, *siks*. A similar inversion to that here supposed occurs in a. s. *acs-ian* and *asc-ian*, e. *ax* and *ask*.

187. (7.) For *seven* Sanskrit has *sápta*; Zend *hapta*; Greek ἕπτα; Latin *septem*; Gothic *sibun*: Anglo-Saxon *seófon*; Engl. *seven*. The declension of the Sanskrit and Zend shows that the stem is *saptan*. The Greek *a* also, as in the Accus. Sing. of the third declen-

sion stands for a nasal preceded by a short vowel   In Latin *m* instead of *n* is an apparent deviation   In Gothic *b* probably stands like the *d* in *fidior* for the vocal aspirate *bh* since the regular law of consonant changes requires in Gothic *dh* for Sanskrit *t* and *bh* for Sanskrit *p*   The English *r* which represents *bh* confirms this view   Possibly the Gothic *b* was in this case pronounced like *r*

188   (8) The word for *eight* is in Sanskrit *a hta* and the dual form *ashtau* in Zend *asta* Greek *o ~ω* Latin *octo* Gothic *ahtav* Anglo Saxon *eahta* Engl *eight*   *sh* and   are derived from the original guttural   In Gothic and Anglo Saxon *h* stand for the guttural aspirate whilst in Engl the aspirate is fully written *gh* though not pronounced

189   (9) For *nine* we have in Sanskrit *nava.* Zend *nava* Greek *εννα* Latin *nove r* Gothic *niun* Anglo Saxon *nigon* English *nine*   The original stem appears to have been *navan* In Greek the *a* indicates the final nasal whilst the prefixing of a vowel and the doubling of the consonant at the beginning are not unusual   In Latin again *n* is in place of *r* and in Gothic *va* is reduced to *u* which in English is represented only by the long quantity of the *r*   The *g* in Angl S 1 irregular   perhaps it was pronounced *y* and was developed out of *r*

190   (10) For *ten* we have in Sanskrit *da a* Zend *aa a* Greek *δ κα* Latin *decem* Gothic *t uhun* Anglo Saxon *tyn*   English *ten*   is for an original guttural which in Gothic is represented by *h* and altogether dropped in Angl S and English   In Greek *a* includes a final nasal and in Latin *m* is instead of *n*

191   The following is a list of the above numerals

Sanskrit	Zend	Greek	Latin	Gothic	Ang.-Sax	English
ê-ka (=ai-ka)	ai-va	(οι-ν-) ἔν	oi-no-s / â-nu-s	ai-na	â-n	o-ne
dwa	dwa	δύο, δύο	duo	tvai	twâ	two
tri	thri	τρεῖς (τρε-ες)	três (tre-es)	thri	threo	three
chatwâr-as	chathwâr,	τέτταρ-ες / πίσυρ-ες	quattuor	fidvôr	feower	four
pânchan	panchan	πέντε / πέμπε	quinque	fimf	fîf	five
shash	khsvas	ἕξ	sex	saihs	six	six
sâpta	hapta	ἑπτά	septem	sibun	seofon	seven
âshtâ	asta	ὀκτώ	octo	ahtau	eahta	eight
nâva	nava	ἐννέα	novem	niun	nigon	nine
dâza	daza	δέκα	decem	taihun	tŷr	ten

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192. The numerals from *eleven* to *nineteen* are as follows:

Sanskrit	Zend	Greek	Latin.	Gothic	Anglo-Saxon	English.
êkadazan	arvandazan	ἕνδεκα	undecim	ainlif	endlufon	eleven
dwâdazan	dvadazan	δώδεκα	duodecim	tválif	twelf	twelve
trayôdazan	thridazan	τρισκαιδεκα	tredecim	thritaihun	threotyne	thirteen
chatúrdazan	chathrudazan	τεσσαρεσκαιδεκα	quattuordecim	fidvôrtaihun	feowertyne	fourteen
pánchadazan		πεντεκαιδεκα	quindecim	fimftaihun	fiftyne	fifteen
shôdazan		ἑκκαιδεκα	sedecim	saihstaihun	sixtyne	sixteen
saptadazan		ἑπτακαιδεκα	septendecim	sibuntaihun	seofontyne	seventeen
áshtâdazan		ὀκτωκαιδεκα	duodeviginti	ahtautaihun	eahtatyne	eighteen
návadazan		ἐννεακαιδεκα	undeviginti	niuntaihun	nigontyne	nineteen

193. In the above list the *units* are prefixed to the word for *ten*, and generally without anything to connect them together, e. g. s. *êládazan* = ' one-ten ; ' go. *fimf-taihun* = ' five-ten ; ' e. *seventeen*. In Greek the numbers after twelve are connected by *καί*, ' and,' which is a later modification. In Sanskrit, Greek, etc., the word for ten is preserved unchanged, except the slight change of *e* to *i* in Latin, e. g. *undecim* for *undecem*. In Gothic the first two of the above numbers have the word ten changed in a very peculiar manner ; viz. *-lif*, stem *libi*, is used, where *b* is for *v*, as in *sibun*, ' seven.' It seems, however, to be the same word originally as that used in the following numbers, *taihun* = s. *dazan*; for there are several examples of the change of an original *d* to *l* instead of to *t*, and that this change was made in the present case appears from the Lithuanian equivalent *lika*, which is extended to the numbers beyond twelve, e. g. *dwy-lika*, ' twelve ; ' *try-lika*, ' thirteen.' In Prâcrit the word for ten, in these compounds, is changed to *raha*, and in Hindustanee to *rah*, in one case *lah*, i. e. *só-lah*, ' sixteen.' The Gothic equivalent for the second consonant *k* would be the aspirate *gh*, for which we usually find the aspirate only, as in *taihun* : but the substitution of *f* or *v* for this aspirate frequently takes place in the Germanic languages, and in English where *gh* is written *f* is pronounced in such words as *rough*, *tough*. So that the Gothic *lif*, stem *libi* (probably pronounced *livi*), appears to be only a somewhat unusual modification of the original word for ten, s. *dazan*, go. *taihun*. Nor is the change so great as one which even modern history has witnessed, i. e. of the Latin *decim* to French *ze* in *on-*ze, *dou-*ze, for *un-***decim**, *duo-***decim**. In Anglo-Saxon the same change of consonants has taken place as in Gothic, in *end-*

lufon and *twelf* but in the former the second syllable of the word for ten is preserved in the form of *o i* whilst in the latter even the *i* in *lif* is dropped so that both vowels of the original word are lost   The *f* in both lar uage may have been pronounced *v*   The word *tyne* i as much abbreviated as the English equi valent *teen*   In English there is also a loss of the inter ven n͚ vowel of the first syllable in one word *twe* **lv** *e* though it is retained in the other *e* **lev en**   the second syllable is preserved as *e* i͚   The word for one loses its final vowel in Greek Latin Gothic and in English the *n* al o is d opped as is usually the case with the article (*an*) before consonants

Th compari on of the Gothic words *sibi n* and *lif* stem *libi* with the English words *seven* and *eleven* leads to the conclusion either that the sound *bh* was chan͚ed in Gothic to *b* or that the Gothic *b* in some instances was pronounced *bh* or *v*

194 The following are the numbers from twenty to a hundred

	Sanskrit	Zend	Greek	Latin	Gothic	Ang.-Sax.	English
20	viñ-záti	vî-zaiti	ἐίκατι	vi-ginti	tvanstigus	twentig	twenty
30	trin-zát	thri-zata	τριά-κοντα	tri-ginta	threistigus	thrytig	thirty
40	chatwârin-zát	chathwaro-zata	τεσσαρά-κοντα	quadrá-ginta	fidvôrtigus	feowertig	forty
50	panchá-zát	pancha-zata	πεντή-κοντα	quinquá-ginta	finftigus	fiftig	fifty
60	shash-tí	khsvas-ti	ἑξή-κοντα	sexá-ginta	(saihstigus)?	sixtig	sixty
70	sapta-tí	haptao-ti	ἑβδομή κοντα	septuá-ginta	sibun-téhund	hund-seofontig	seventy
80	azî-tí	——	ὀγδοή-κοντα	octó-ginta	ahtau-téhund	hund-eahtatig	eighty
90	nava-tí	navai-ti	ἐνενή-κοντα	nóná-ginta	niun-téhund	hund-nigontig	ninety
100	zatá-m	zatè-m	ἑ-κατό-ν	centu-m	hunda	hund-teontig	hund-red

195 The small numbers are placed first as in the previous serie and a derivative from the word for ten is employed to express ten times viz s *da ata* differently abbreviated in various words to *da at atı at tı* z *artı zata tı* In the Greek and La in κ κτα and *gn ta* a nasal is in erted and *h* changed to *g* in Latin both have the form of Neuter Plurals In Gothic *tıgu s* in 90—60 has *g* in place of *gh* as in the previous list the same word retains only *h* for *gh* The fuller form with add tion of *d* and *e* for *aı* is u ed in 70—90 Both are declined In this respect also *g* for *gh* resembles *b* in hın for *bh* and admits of a similar explanation viz that *ıh* was in Gothic reduced to the sound *g* or that in ome case *g* represents the *gh* sound If we add the ca e of fi*d*vor where *d* is for dh (=*th* in *then*) we have the same phenomenon in regard to all the soft or vocal aspirates ı e *gh dh bh* are all reduced to the corr ponding vocals *g d b* or these latter were all pronounced in some cases in Gothic as aspirates viz *gh dh bh* Of these the first is a sound not preserved in the English language the second is represented by *th* in *the* ı and the third by ı In Anglo Saxon *tıg* admits the same explanation as in Gothic *Hund* for go te*hund* is prefixed and the usual *tıg* superadded in 0—90 *l ı nd* is used alone for 100 as *hı nda* in Gothic but *h ı ıdı ed* also is found as in English In the Engli h *ty* only the first syllable of the word is preserved The *y* however may be regarded as the representative of the second consonant which in English would be *gh* as in Gothic so that e *ty*=a *tıg* In many English words this sound being lost in the living lan uage is represented by *y* e g *da***v** for *da***gh** compared with the German *ta***g** *la***y** for *la***gh** compared with the German *la***g** The same word in Latin with

the termination of the Neuter Singular, *m*, serves to express a hundred, *centum*; in Greek, with *ἑ* prefixed, and *a* for *ον*, *ἑκατόν* (perhaps for *ἑν-κατον*) = 'one hundred.' The Gothic *hund* in *hund-a*, where *d* is for *dh*, is the exact counterpart of the Latin *cent* in cent-um.

b) ORDINAL NUMERALS.

196. The Ordinal Numerals are adjectives formed from the Cardinals, generally by the superlative ending *-tama*, which, in some cases, is reduced to *-ta*, and in others to *-ma*, as will be seen in the following list:

	Sanskrit.	Zend.	Greek	Latin.	Gothic.	Ang-Sax	English.
1	pratha-mâ-s	frathê-mô	πρῶ-το-ς	pri-mu-s	frum-s	for-ma,	fir-st
2	dwi-tî´ya-s	bi-tyô	δεύ-τερο-ς	al-ter	an-thar-s	ô-dher	second
3	tṛ-tî´ya-s	thri-tyô	τρί-το-ς	ter-tiu-s	thri-dja	thry-dde	thir-d
4	chatur-thâ-s	tuîr-ya	τέταρ-το-ς	quar-tu-s	(fidvô-dja)	feor-tha	four-th
5	pancha-mâ-s	pukh-dhô	πέμπ-το-ς	quin-tu-s	fimf-ta	fif-ta	fif-th
6	shash-thâ-s	khs-tvô	ἕκ-το-ς	sex-tu-s	saihs-ta	six-ta	six-th
7	sapta-mâ-s	hapta-thô	ἕββο-μο-ς	septi-mu-s	sibun-da	seofo-tha	seven-th
8	ashta-mâ-s	astê-mô	ὄγδο-ο-ς	octa-vu-s	ahtu-da	eahta-tha	eigh-th
9	nava-mâ-s	nâu-mô	ἔννα-το-ς	non-u-s	niun-da	nigo-tha	nin-th
10	daza-mâ-s	daza-mô	δέκα-το-ς	deci-mu-s	taihun-da	teó-tha	ten-th
11	êkâdazá-s	aivandazô	ἑνδέκα-το-ς	undeci-mu-s	(ainlif-ta)	endlyf-te	eleven-th
20	vinzati-tamá-s	vizaiti-têmô	εἰκο-στό-ς	vicê-simu-s	———	———	twenti-eth

197. The word for *first* is an exception to the rule, inasmuch as it is not formed like the rest from the corresponding cardinal numeral. In all the above languages the word, however, is of one and the same origin. The first syllable appears in the various forms of *pra*, *fra*, πρω, *pri*, *fru*, *for*, *fir*, which present no modification but what has been abundantly illustrated in other cases. A peculiar ending appears in the word for 'third' in all except the Greek τρί-το-s, which is regular. This ending appears to have been *ta-ya* instead of *tama*, contracted to *tya*, and then enlarged to *tíya* in Sanskrit. In Gothic, Anglo-Saxon, and English, *d* is in place of the aspirate *dh*. In English *ir* is, by a transposition of letters, for *ri*. In the word for 'second' the comparative ending is employed, except in z. *bi-tyó*, which perhaps has been altered under the influence of *thri-tyó*, and in s. *dvi-tí'ya-s*, which may have originally ended only in *íya-s*, one of the comparative forms, and, as in Zend, have adopted *t* in imitation of *tr-tí'ya-s*. In English 'other' has been appropriated to another use, and *second*, from the Latin *secundus*, substituted among the Ordinals. Secundus is also employed in Latin as a Numeral in place of *alter*. In the z. *tuír-ya* the ending is reduced to *ya*, as in the s. *túr-ya*, which also occurs. In Old Slavic this *ta-ya* or *ya* occurs in all the words.

There is a difficulty in deciding to which part of the word a letter belongs in some of the above forms. For instance, if the Latin word be divided into *septim-u-s*, *m* of the cardinal *septem* is preserved, and that of the ending *mu* is dropped; but if it be divided into *septi-mu-s*, the former *m* is dropped and the latter preserved. In ὄγδο-o-s the *m* is dropped, and in *octa-vu-s*

v is ubstituted for it   In *ekada* *a s* either *a* *n* or *i* *ia* has been dropped from *el ada a ma s*

In Gothic the ending *ta* has pieserved the oiiginal *t* in some cases from the influence of the preceding consonant   in other cases *d* may have been pronounced as an aspirate 1 e *dh*   In Anglo Saxon ma occurs in 1st as in all the othei languages except Greek and English   In 2nd the comparative foim is used and in the other numbers except 3id   *ta* occurs in the iegular equivalent foim of *tha* or as *ta* or *te* where the preceding consonant pievents the *t* from being aspi rated   In 3id *ade* by assimilation from *dya* is equal to ᴕo   *dja* and this is a iegular equivalent for the s *tya* (tiya) the *d* being pronounced as *dh*   In English the aspirate occurs in all except *thii d* where since no vowel follows as in Anglo S   the difficulty of pro nunciation explains the change   It is evident that the Ordinal Numerals have been considerably modified since the separation of these languages for the formative endings are not alike in any two of them except the more modern Go   Anglo S   and Engl   and yet the original analogies have not been lost sight of   for no absolutely new ending occurs in any of them

c) NUMERAL ADVERBS

198 In the formation of Numeral Adverbs *s* 1 frequently employed as in—

S kr	Z d	G k	L t	A glo-S	E gli h
dw	b	δ ç	b s	(tu w)	tw ce
tr s	th s	ρ ç	ter(s)	(th y wa)	th e
chatur(s)	chathru s	——	quater( )	——	four times

It is singular that this *s* (ce) appears in English though lost in Anglo-Saxon.

The omission of *s* after *r* in *ter*, *quater*, *chatur*, is regular. *zas* (from *kas*) is also used in Sanskrit, and κις in Greek, e. g. *bahú-* żas, πολλά-κις, 'many times.' In Sanskrit *vat* (*vant*) or *kŕt-vas*, and Latin *ien-s*, *ié-s*, for *uent-s*, *uet-s*, are used to denote 'possessed of' or 'times,' e. g. *daża-*kŕtvas, 'ten times;' *quo*tiês, *quo-*tiens, 'how many times.' 'Distribution into' is expressed by s. *dhâ*, gr. χα, e. g. *dwi-*dhâ' = δί-χα, 'by twos.'

IX. PRONOUNS.

199. The original elements of which the Pronouns are formed are very obscure, and the words have undergone such great changes that many of the forms admit only of conjectural explanations.

a) PRONOUNS OF THE FIRST AND SECOND PERSON.

The Pronouns of the First and Second Persons are similarly inflected, and may conveniently be considered together. They have the following forms:

Pronouns of the First and Second Person Singular.

	Sanskrit	Zend	Greek	Latin	Gothic	Anglo-Saxon	English
Nom	ah-ám	az-êm	ἐγ-ών	eg-o	ik	ic	I(k)
	tw-am	tû-m	σύ	tu	thu	thû	thou
Acc	mâ-m	ma-nm	μέ	mê	mi-k	me (meh, mee)	me
	twâ-m	twa-nm	σέ	tê	thu-k	the (theh, thee)	thee
Inst	má-yâ	——	——	——	——	——	'by me'
	twâ-yâ	——	——	——	——	——	'by thee'
Dat	má-hyam	mai-byâ	μο-ί	mi-hî	mi-s	me	me
	tú-bhyam	thw-ôi	σο-ί	ti-bî	thu-s	the	thee
Abl	ma-t	ma d	——	me-d	?	me	'from me'
	twa-t	thwa-d	——	te-d	——	the	'from thee'
Gen	má-ma	ma-na	μο-ῦ	me-î	mei-na	mî-n	my, mi-ne
	tâva	thwa-hyâ	σο-ῦ	tu-i	thei-na	thî-n	thy, thi-ne
Loc	má-yi		——	——	——		'in me'
	twâ-yi	thwa-hmî	——	——	——		'in thee'

209. There are two stems in the above forms of the first person, one for the Nominative alone, and the other for the remaining cases. The Nom. has for the first person in Sanskrit *ah*, and for the second *twa*. The Latin and Greek seem to have preserved the original consonant in the first person; for the Germanic languages have *k* and *kh* (germ. *ch*), which presuppose *g* in the earlier languages. The Sanskrit *h* and Zend *ž*, therefore, are corruptions of the original sound. Modern English, *I*, has lost the consonant as compared with the old English *ik*, like the Italian *io* as compared with the Latin *ego*.

The ending of the Nominative is s. *-am*, z. *-ěm*, gr. *-ov* in the archaic forms ἔγ-ων, τούν, l. *o*. It is lost in the other languages, and is a form which appears originally to have been confined to a few pronouns, i. e. *ah-ám*, *tw-am*, *ay-ám*, *sway-ám*, etc.

The stem in the oblique cases of the first person is *ma*, that of the second person *twa* (or *tu*, changed to *tw* in some cases). The Accusative, Instrumental, Ablative, and Locative coincide with the declension of nouns. The Dative and Genitive differ. The former cases have in several languages lost the case-ending. Even Sanskrit and Zend have Acc. *mâ* and Gen. *mé* as well as the fuller forms. The *k* in Gothic and sometimes in Anglo-S. Acc. appears to be the remains of a demonstrative particle, as in Latin *hi-***c**, *hun-***c**, *tun-***c**, etc.

The ending of the Dative is *-bhyam*, which occurs with modified forms in the dual *-bhyâm* and plural *-bhyas* of nouns. It is reduced in the Sanskrit first person to *-hyam*, in Zend to *-byâ* and *-ôi*, in Greek to *-ι* (unless the Greek forms are really Locatives), in Latin to *-hi* and *-bi*. It is quite lost in the Germanic languages.

The Genitive appears to be a reduplication of the stem *ma ma   ta ta* for ta twa and this for twa twa The Greek and Latin are greatly abbreviated and the Gothic as well as the Anglo Saxon and English words have an adj ctive form which is doubtless of later origin and occ sioned by the reduced reduplication being no longer understood as a Genitive sign   In English this adjective ending is again dropped before consonants e g *nane* own but *my* house

In Greek the stem consonant σ in the second person is the regular substitute for an older *t* and many archaic forms preserve τ e σ το τοιο etc

201 The Plural forms of the First and Second Per ons are

	Sanskrit.	Zend.	Greek (Ionic)	Latin.	Gothic	Anglo-Saxon	English
Nom.	{ vay-ám / a-smé } { yu-shmé / yuy-ám }	va-ém / yú-shém	ἀ-μμε-ς / ὑ-μμε-ς	nô-s / vô-s	vei-s / ju-s	we / ge	we / you
Acc.	a-smá-n / yu-shmá-n	nô / vô	ἀ-μμε / ἰ-μμε	nô-s / vô-s	u-nsi-s / i-zvi-s	ús (úsih, úsie) / eów (eówih, eówic)	us / you
Instr.	a-smá-bhis / yu-shmá-bhis	—	— / —	—	— / —	—	— / —
Dat.	a-smá-bhyam / yu-shmá-bhyam	mai-byô / yu-shmaii-by.a	ἀ-μμι-(ι) / ὑ-μμι-(ν)	nô-bis / vô-bis	u-nsi- / i-zvi-s	ús / eów	us / you
Abl.	a-smá-t / yu-shmá-t	— / yû-sma-d	— / —	—	— / —	ús / eów	— / —
Gen	a-smá-kam / yu-shmá-kam	a-hmá-kém / yu-smá-kém	ἀ-μμέ-ον / ὑ-μμέ-ον	nostri / vestri	u-nsa-ra / i-zva-ra	ú-re / eów-er	our / your
Loc	a-smá-su / yu-shmá-su	—	ἀ-μμι-σι	—	—	—	— / —

The stem of the first person is *a sma* and of the second *yu shma* (for yu sma)   The full forms occur throughout in Sanskrit together with some abbreviated forms   The abbreviations in Zend are similar to what have been already illustrated   The Accusatives corre spond to *nas ras* which are used in Sanskrit   In Greek (Æolic) *sma* assumes the form $\mu\mu\varepsilon$ in which *s* is assimilated to the following letter   In the Attic forms the rough breathing is used for *s* as in many other cases e g ξ for *sex* etc   But the stem vowel of the first per son is lengthened to η and the rough breathing prefixed Hence we have $\eta\mu\iota s$ $\upsilon\mu\varepsilon\iota s$ for $\eta\mu\varepsilon$ *es* $\upsilon\mu\varepsilon$ *es* and these for η $\sigma\mu\varepsilon$ *es* υ $\sigma\mu\varepsilon$ *es*   The older forms have been placed in the table in order to show more clearly the correspondence of the Greek with other languages The forms $\eta\mu\iota\nu$ $\upsilon\mu\iota\nu$ for $\eta\mu\varepsilon$ *in* $\upsilon\mu\varepsilon$ *in* exhibit *in* for *y m* of the Sanskrit ending *bhyam* the rest being dropped The Genitives agree with the declension of nouns to which they have perhaps been assimilated in later times As there is a proper Dative to these pronouns in the Plural the Locative has disappeared in the classical language though a reminiscence of it is preserved in the Æolic *a* $\mu\mu$ $\sigma\iota$ In Latin we find *no vo* with the addition of *s* in the Nominative and Accusative and of *bis* in the Dative   In Sanskrit also *na-s va s* are used in the Accusative Dative and Genitive   Corresponding forms occur in Zend   The fact that *s* appears in three cases besides the Nominative makes it unlikely that it should be the sign of that case   Bopp thinks it is a remains of *sma* whilst *no vo na va* are modifications of *ma twa* which appear in the singular *a* in the plural of the first person being also a corruption of *ma*   This explanation of the stem needs further con firmation and the entire absence of all trace of *sma*

from *nó-bis, vó-bis,* is an evidence against its existence
in the Latin plurals.   In *ego-met, tu-met, nos-met,* the
assumption of the existence of *sma* is not without dif-
ficulty, for *met* appears to be affixed to the Nominative
case, which suggests that these are late formations. The
Genitives *nostri, vestri,* etc., may be readily admitted to
be adjectives.

In Gothic the Nominatives *vei-s, ju-s,* have stems
corresponding to those Sanskrit ones which have not
sma affixed (i. e. *vay-ám, yúy-ám*), but *s* occasions the
same difficulty as in Latin; perhaps in both cases the
simpler hypothesis would be that it was adopted in later
times in imitation of nouns.   In the oblique cases *u*
(before a nasal) and *i* represent the Sanskrit *a* and *yv.*
The changes of the latter *yu* to *y* and then to *i* contain
nothing unusual.   There is no difficulty either in sup-
posing *sma* to have become *nsa,* as in Zend *mhu,* and
then *s* to have caused the change from *m* to *n.* So that
Gothic *nsa, nsi* correspond to Sanskrit *sma.* In *zva, zvi,*
the softening of the *s* is due to the preceding weak vowel
i, and the change from *m* to *v* is one which extensively
occurs.   The final *s* in the Accusative, as in Latin, is
probably for *ns,* as in the Accusative plural of nouns.
In Sanskrit the other consonant, *n,* is preserved. In the
Dative also a final *s* occurs. Perhaps we ought to divide
the Latin words into *no-bi-s, vo-bi-s,* leaving only *bi* of
the original ending *-bhyam,* as in the singular *mi-hi,*
ti-bi.   In Latin the *s* is probably an imitation of the
nominal declension, where the original form *bhyas* ends
in *s*; or it is the Instrumental used as a Dative.   In
Gothic its origin remains obscure.   It is not likely to
be a remains of *sma,* which would make *u-nsi-s* for
u-nsi-nsi.   Probably the Gothic Dative is really the
Accusative used for the Dative.   The Genitives, except

M

in Greek appear to be all possessive adjectives i e
our your for of us of you In Anglo Saxon the
reduction had already proceeded almost as fa as in mo
dern English In *ge* and *eou* *g* and *e* were pronounced
y In *us* the length of the *u* shows some remains of
the syllable *sma* whilst *s* appears to correspond to the
final *s* in Gothic since in the Genitive *u* is for u + sma
and the final *ra* preserved as *re* In *eou* on the con rary
the final *s* is lost The older forms *u si-h u si c
eow i h eow i c* also occur

202 The forms of the Dual for the First and
Second Persons are

	S k t	G k	G h	A g S	E gl h
Nom	m		t	w t	we two
	yu m		—	g t	ve tw
Acc	m		u ki	u c	u t
	yu v m	φ	nq s	c	y u two
Instr	bhy m —		—	—	by us two
	yu bhy m —		—	—	by y u tw
Dat	v bhy m		u k s	u c	t tw
	yu a bhy m		q	c	to you two
Abl	a bhy m —		—	u c	f om us two
	yu bhy m —		—	c	from you two
Gen	v y s		u k	u ce r	of us two
	yu y	φ	q a a i ce		of you two
Loc	y s —		—	—	n st o
	yu a y s —		—	—	n you two

In the dual *va* occupies the place of *sma* in the
singular and plural *s* being dropped and *m* changed to

s, as in the Gothic forms of the second person both dual and plural. In Sanskrit the Nom. and Acc. end alike in *ṓ*. In the Nom. it is most likely of the same origin as in the Singular and Plural *ahaṁ, vayam*, etc. In the Acc. it is the original case sign, preserved in the singular. preceded by a long vowel in the dual, and changed to *u* in some nominal forms : hence -*âu* for *â-m*. It is changed to *n* in the plural in consequence of being followed by *s*, which was afterwards dropped. The Accusatives *nâu, vâm*, appear to be abbreviations of the older forms, the stem syllables *a* and *ya* being dropped : *nâ* would then be an irregular form for *sma*. Bopp suggests the original to have been *nâ-smâu*. In Greek *νω* and *σφω* may also be regarded as strangely altered forms of *sma*, having the vowel lengthened as in the Sanskrit *iâ*. The Dative ending *w* corresponds to the Sanskrit *bhyâm*. It is used irregularly for the Genitive. *i* in the Nom. and Acc. may be for Sanskrit *i*, which occurs in some nouns. In Gothic the stems are the same as in the plural ; the syllable *sma* in the oblique cases assumes the forms *uk, nka, nqvi, nqva, qv* being equal to *k*, and *k* standing in place of Sanskrit *s*. The final *s* in the Acc. and Dat. is the same as in the Plur., the nasal, which is preserved in Sanskrit, being here dropped. The final *t* in the Nom. of the first person, Bopp says, 'clearly belongs to the designation of the number two (stem *twa*).' The Anglo-Saxon preserves much older and fuller forms in the Dual than in the Plural. The reason probably is that the former were less used, and therefore less worn and wasted, than the latter. We have the Nominative of both persons, and both alike add *t* to the Plural. In the other cases *nc* clearly corresponds to the go. *nk*, *nq*, as representative of *sma*. The personal endings are lost in

the Accusative and Dative   *U nci t ı nci t* also occur
for *unc ınc*   An Ablative ıs gıven but ıdentical ın
form wıth the Datıve as ın the Sıng and Plur   An
Ablatıve mıght perhaps wıth equal proprıety be assıgned
to the Gothıc

b) PRONOUNS OF THE THIRD PERSON

203. There ıs a great varıety of Pronouns of the
Thırd Person   Theır form ın dıfferent languaᵍe mu
tually help to explaın each other and the comparıson
of them serves to elucıdate many ısolated words whıch
otherwıse would be ınexplıcable

The Reflexıve Pronoun ıs —

	Z d	G k	L	G hi
Acc	——	ʔ		k
In t	——	——	——	
Dat	h h		s b	s
Gen	h h		su	se na

The Sanskrıt Anglo Saxon and Englısh have lost
the use of thıs pronoun ın a separate form but the
Sanskrıt has *swa* and *sway am* ın some compounds
e g *sv a bhu   swayam bhu*   to be self orıgınated
swayam prabha   to be self glorıfied   *swa tas* ıs also
used ın the sense of self   As a possessıve pronoun fully
declıned, *swa* ıs also used of all persons and numbers
ın the sense of my   thy   hıs   our etc   In thıs
usaᵍe ıt corresponds to the Greek σφο *s*

In the Reflexıve Pronoun the orıᵍınal *w* appears
only ın Greek Acc as φ and Latın Gen as *u*   The *s*
has become *h* ın Zend and *spırıtus asper* ın Greek

In Zend thıs pronoun occurs ın the form of *qha* ın

compounds (e.g. *qha-dhâta*, 'self-produced'), and of *hwa*
as a possessive. In Latin *i-pse* is explained as being
by inversion for *i-spe*, and *sp* for Sanskrit *sw*, as in
sponte. A similar inversion occurs in the Doric ψίν
for σφίν. The change of Sanskrit *w* to Latin *p* is
illustrated in l. **p**or-*ta* = s. *d***w**â'*ra*, 'door.'

The Reflexive Pronoun is not preserved in Anglo-
Saxon and English, unless it be in the word *self*, as in
the German *selbst*, in which *lf* as in *loaf*, and *lb* as in
laib, are an expression for 'body' or 'person;' *se-lf* =
'one's own person.'

Demonstrative Pronouns. TA.

204. The Demonstrative stem **ta**, Fem. *tâ*, is ex-
tensively employed. Its forms are the following:

Singular.	Sanskrit	Zend	Greek	Latin	Gothic	Ang. Sax.
Nom. { m.	sa-s	hô	ὸ	is-te	sa	se
Nom. { n.	ta-t	ta-d	τό	is-tu-d	tha-ta	thæ-t
Acc { m.	ta-m	tô-m	τό-ν	is-tu-m	tha-na	tho-ne
Acc { n.	ta-t	ta-d	τό	is-tu-d	tha-ta	thæ-t
Instr.	tê-na	(tâ)	—	—	thê	—
Dat.	tá-smâ-i	(ta-hmâ-i)	—	—	tha-mma	thám
Abl.	tá-smâ-t	—	—	is-to-(d)	—	thý
Gen.	tá-sya	(ta-hê)	τοῖο	is-tîu-s (is-to-iu-s)	thi-s	thæ-s
Loc.	tá-sm-in	(ta-hmi)	τῷ	is-tî (is-to-i)	—	—

	Sanskrit	Zend	Greek	Latin	Gothic	Ang.-Sax.
Plur.						
Nom. { m.	tê	tê	τοί, οἱ	is-ti	tha-i	tha
{ n.	tấ-ni	tâ	τά	is-ta	thô	tha
Acc. { m.	tấ-n	(ta-n)	το-νς, το-ύς	is-tô-s	tha-ns	tha
{ n.	tấ-ni	tâ	τά	is•ta	thô	tha
Instr.	tâ-is	(tâ-is)	—	—	—	—
D.Abl.	tê'-bhyas	taii-byô	—	is-tî-s	tha-im	thâm
Gen.	tê'-shâm	(tai-shanm)	τῶν	is-tô-rum	thi-zê	tha-ra
Loc.	tê'-shu	(tai-shwa)	τοῖ-σι	—	—	—
Dual.						
N. Acc.	tâu, tâ	tâo, tâ	τό	—	—	—
I. D. Abl.	tấ-bhyâm	(taii-byu)	το-ίν	—	—	—
G.L.	tấ-yôs	(tấ-yo)	το-ίν	—	—	—

	Sanskrit	Zend.	Greek.	Latin	Gothic	Ang.-Sax.
Fem. Sing.						
Nom.	sâ	hâ	'ά, ή	is-ta	sô	seó
Acc.	tâ-m	(ta-ìm)	τά-ν, τή-ν	is-ta-m	thô	thâ
Instr.	tâ-yâ'	(ta-hmya)	—	—	thi-za	thæ-re
Dat.	tâ-syâi	ta-nhâi	—	—	—	thý
Abl.	tâ-syâs	ta-nhâḍ	—	is-ta(d)	thi-zos	thæ-re
Gen.	tâ-syâs	ta-nhâo	τᾶ-ς, τῆ-ς	is-tiu-s	thi-zos	thæ-re
Loc.	tâ-syâm	ta-hmya	τῇ	is-tî	—	—
Plur.						
Nom.	tâ-s	(tâ-o)	ταί, αἱ	is-tæ	thô-s	thâ
Acc.	tâ-s	(tâ-o)	τά'-ς	is-tâs	thô-s	thâ
Instr.	tâ'-bhis	•(tâ-bis)	—	—	—	—
D. Abl.	tâ'-bhyas	(tâ-byô)	—	îs-tî-s	tha-im	thâm
Gen.	tâ'-sâm	ta-onhanm	τά-ων, τῶν	is-tâ-rum	thi-zo	thô-ra
Loc.	tâ'-su	tâ-hwa	ταῖ-σι	—	—	—
Dual.						
N. Acc.	tê	tê	τά'	—	—	—
I D. Abl.	tâ'-bhyâm	tâ-bya	τα-ῖν	—	—	—
G. L.	tâ-yôs	—	τα-ῖν	—	—	—

The Nominative singular, Masc. and Fem., has a
stem, *sa, sâ,* different from the rest of the pronoun.
The Loc. **sá**-*smin* in the Vêdas, the Latin archaic
forms **su**m, **sa**m, **sôs**, for *eum, eam, eôs,* and **Sa**psa
for *ea-ipsa,* as well as the Greek σή-μερον, σή-τες, render
it probable that this stem (*sa*) was at first completely
declined, and that in the above forms we have parts of
two separate pronouns, just as several languages form
the substantive verb from two or more roots, which were
each originally fully conjugated. Possibly also the
Greek plurals *oi, ai,* are further remains of this once
complete pronoun, whilst *τοι, ται* belong to the other.

The *stem* in the rest of the pronoun undergoes
but slight changes. In Sanskrit the Masc. and Neut.
is sometimes *tâ* or *tê* in accordance with general usage,
whilst in the Fem. the vowel is in some cases shortened.
In Zend the instances adduced are mostly conjectural.
In Greek the stem is preserved with great regularity in
all genders. In Latin the stem does not appear separately
as a pronoun, but it is preserved in several adverbs
and conjunctions, i. e. **tu**-*m,* **tu**-*nc,* **ta**-*m,* **ta**-*ndem,*
ta-*men,* **ta**-*lis,* **ta**-*ntus,* **to**-*t,* **to**-*tidem,* **to**-*tiês.* As a
pronoun it is compounded with *is* in *is*-**te,** of which the
s may be the Nom. sign, as in *is, ea, id.* In this com-
pound form it is probably of late origin, and for this
reason it has the same stem in the Nom. Singular as
elsewhere. In Gothic the stem assumes the regular
forms **tha, thi, thô,** and in Anglo-Saxon **thæ, thŷ,
thâ.**

The *endings* in Sanskrit are the same as in the *a*
stems of nouns, with the insertion of *-sma* in the Dat.,
Abl., and Loc. Sing., and the addition of *n* in this last
case. The Nom. Masc. also omits the case sign generally
in the singular, and has *ê=a-i* for *âs* in the Nom. plural.

The Gen plural has *s am*   In Greek the declen ion
agrees with that of noun   omitting the cas sign
in the Nom Sin Masc   In Latin the greatest
deviation from the nominal declension is in the Gen
singular *ius* for s   *a sya* s being dropped $a+y$ be
coming *i* and *a* becoming *u*   The final *s* causes some
difficulty but we see the tendency to introduce that letter
in the first syllable *is* of this pronoun and in the Neut
felix happy   It may here also be an inorganic addi
tion which does not admit and does not require any
further explanation   The Nom Sing Masc has no case
sign *te* being a weakened form of the stem   In Gothic
and Anglo Saxon the endings require no special remark

The same stem occurs in the Latin words *i* **de**i   the
same   *qui* **de**m   indeed   *qui* **da**m   some one as
well as in **du**m   whilst   **de**mum   at length   **do**nec
until   **du**dum   before   **de**nique   then   *d* for *t*
appears in s *i* **da**m   z **de**m   **di**m   for *tem*   gr δε   and
In οδε   this (Hom Dat plural τοισδεσσι τοισδεσι) the
two forms of the same stem appear combined just as in
the Latin *tandem*   at length   Aυ το s   he is a similar
compound to the 1 *is te* and s *e ta*   and *ου* το s   this
for o *αυ* τος consists of three pronominal stems   Bopp
considers ϑα ϑεν in *αυ* ϑα   *αυ* ϑεν etc   to be of the same
origin   That the forms with *t* and *d* were originally
identical is rendered probable by such words as 1
demum compared with gr τημος   then and s *ta* vat
1 **do**nec with gr τηνικα   at that time of day

The stem *ta* also forms a compound with *ya* the stem
vowel of the first part being dropped   It thus forms
Nom Singular M *sya* F *sya* N *tyi t* and is declined
like *ta*

I.

205. The pronominal stem *i* appears in several languages. In Sanskrit it forms part of the pronoun, M. **ay**-*ám*, N. **i**-*dám*, F. **iy**-*ám*. It is also used in several indeclinable words in Sanskrit and Zend, e. g. s. **i**-*tás*, 'from here;' **i**-*há* (for *i-dhá*), z. **i**-*dha*, **i**-*thrá*, 'here;' s. **í**-*ti*, z. **í**-*tha*, l. **i**-*ta*, 'so,' s. **i**-*dá'ním*, 'now;' **i**-*tthám*, 'so;' *chét* (=*cha*-**it**), 'if;' *nét* (=*na*-**it**), 'if not;' z. *nó*-**id**, 'not;' s. **í**-*tara-s*, 'the other;' **í**-*dṛśa*, 'such;' **iy**-*át*, 'so much.' In Greek, there is no pronoun of this stem, nor any trace of one, except perhaps the Acc. *ï-ν*. But the demonstrative *ι* added to many words, as *ὸντοσ*-*ί*, 'this one,' etc., preserves the stem. In Latin, *i-s*, *e-a*, *i-d*, 'this,' is fully declined, the stem fluctuating, as is frequently the case in this language, between *i* and *e*, and some of the forms, as *e-u-m*, etc., having also been adapted, by the addition of *u*, to the second declension of nouns. An older form *i-m*, however, remains. The same stem appears also in **i**-*terum*, 'again;' **i**-*mmo*, 'nay,' for *i*-smo-d = s. *i*-smâ-t. In Gothic the stem undergoes but slight modifications, and the endings are regular, e. g. :

		Nom	Acc.	Dat.	Gen.
Sing.	m.	*i*-s	*i*-na	*i*-mma	*i*-s
	n.	*i*-t			
Plur.	m.	*ei*-s	*i*-ns	*i*-m	*i*-zê
	n.	*y*-a			

A.

Another pronominal root of extensive application is *a*, which furnishes some of the cases of *i-dám* in Sanskrit.

e g Dat **a** *sma ı* Abl **a** *sma t* Loc **a** *smın* etc   It
ıs used ın the adverbial forms **a** *tı a*   here   **a** *tas*
    hence   **a** *dya*   this day   The usual Feminine form
ı has become *ıy* as ın the Nom sınᴳular **ıy** *am*   Some
cases combine *a* with *na* e g Instr sın᎐ular **a** *ne   na*
(a na ı na)   There ıs the same compound ın Latin
e nı-*m*   for   and the second part of ıt ın **na** *m*   for
nu *nc*   now **ne**-*mpe*   surely **nu** *m* **ne**   The Greek
words *νι ν* hım etc *νυ* well *νυ ν*   now   as well
as the Sanskrit **nu** appear ᵗo contain the same root *na*
This root also furnishes the negative particles ı s **na**
gr *νη* l **ne** **m** go **nı** a s **ne** Old Engl **ne**   The
compound form *ana* appears ın the conditional particle
gr *αν* l **an** go **an** (not ın a s) old e **an**   ıf   The
following are ınstances of triple compounds with *a* viz
a *na ya* **a** *na tara* which become **a** *nya s* **a** *ntara s*
    other   gr *α λλος* with change of *n* to *l* and assimi
lation of *y* l **a** *lius* (with *y* changed to *ı*) **a** *lter*   go
a-*lịa* **a** *nthan a*   e **e** *l-se* as an adverb   otherwise
e **o** *thei* and a s **o** *dher* with the *l* oı *n* dropped after
changing the vowel to *o*

AVA

In Sanskrit *ava* has ceased to be used as a pronoun
but appears as a preposition e ᴳg **ava** *tan*   to come
down   In Zend ıt retains ıts pronominal character   In
Greek ıt ıs compounded with *ta* forming *αυ το ς* ın
which and many sımılar forms the second *a* ıs omitted
αυ ϑι   ın this place   as a Locative and *αυ ϑεν* as an
Ablative belong to the simple pronoun   *αυ* has probably
lost a case endıng   In *αυ ταρ* ıt ıs combined with the
comparative suffix   In the l **au** *tem*   but   the last
syllable may be the superlative termination   ın **au**t

perhaps for *au-ti*, the ending is the same as in *u-ti*, *i-ti-dem*, and s. *i-ti*, 'so.' *ou* is a more usual representative of s. *av* than *av*: hence we have *oũ-v*, 'then,' *ou*, 'not.' In go. **au**-*l* (a. s. *â-c*, 'but '), e. *ê-ke*, the same pronoun appears, with a demonstrative particle, as in *mi-k*, etc.

Relative Pronouns. YA.

The Relative pronoun *ya*, is declined in Sanskrit like *ta*. In the Greek *ὅs*, *ἥ*, *ὅ*, the *spiritus asper*, as in many other cases, is for Sanskrit *y*. In Zend this pronoun has a demonstrative meaning. It is preserved in go. **ei** and **ja**-*bai* for *ja-ba*, 'if;' a. s. **gi**-*f*, pronounced *yif*, e. **i**-*f*. The ending is the same as in the Interrogative *i-bai*, *i-ba*. Bopp supposes this *ba* (where *b* was probably pronounced *v*) to be for s. *va*, which brings it still nearer to the English *if*, where both syllables are greatly abbreviated, viz. *i* standing for *ya*, and *f* for *ia*. Further, go. **ja**-*u*, 'whether,' for *ja-u*, and that for *ja-va*, preserves the same elements; go. **ju**, 'now,' 'already,' l. **ja**-*m*, are of the same origin. The Latin *m* for *v* corresponds to l. *mare* for s. *vari*. Gothic **ja**-*i*, **ja** (e. **yea**), and **ja**-*h*, 'also,' with an ending like the Latin *que* in *quo-que*, 'also,' belong to the same root. Engl. **ye**-*t* is combined with the same particle as *na* is in s. *nét* for *na-it*.

Interrogative Pronouns. KA.

206. The root of the Interrogative has three forms in Sanskrit, *ka*, *ku*, *ki*, all probably modifications of the same original. The first is the more extensively applied, and was doubtless originally complete in Sanskrit as in Zend, Greek, and Latin; for the Nom. and Acc. singular

Neut *l at* instead of which *l n i* is used appear in
kach chit for *l at chit* and in *had a lh a i*   a bad
street   lit   what a street   The ordinary Greek form
would be κσ which is also preserved in the Ionic dialect
e ς κο τε   once κω s   how?   κο τερ ν   whe her?
κο σος   how great?   κο ιος   of what kind   but in
Attic Greek the conson at is changed to τ e g το τε
πω s   πο τερ ν   πο σος   πο ος   The Latin **qui** also
in some c se   belongs to the *o* and *a* declensions which
answer to the Sanskrit *a* and *a*   It has the Latin
characteristic *u* after the guttural   In the Nom
sin ular Fem the *e* in **qua** *e* as well as in *ha e c* is
obscure   The forms of the go **hva** belong to the same
root as we l as the Anglo Saxon **hwa** and English *ho*
(with an inversion in the order of the consonants) for
hwo   The *h* in these languages regularly answers to
Sanskrit *l* and the *w* is developed similarly to the
Latin *u*

The second form of the Interrogative *l i* appears in
some adverbs e g **ku** *ti a* where **ku** *tas* whence
etc   The Latin forms which seem to belong to this
stem viz **cu** *jus* of whom **cu** *i* to whom etc are
more probably abbreviations of *qu o jus quo i* etc
where there i a similar curtailment of the first syllable
as in the pronunciation of the English *i ho* for *hi o* in
which *o* is omitted and *i* sounded as *oo*   *l u* is used
like *lat* in depreciatory compound **ku** *tc nu*   ugly
bodied   lt   of what a body   l **u** *ter* has lost the
guttural which is preserved in ςo **hva** *than*   a s
whæ *dher* e **whe** *thii*   It is also wanting in l **u** *bi*
u *n de* (but *ali cu bi ali cun de*) **u** *nquam* **u** *squam*
u *spiam* **u** *sque*

The third stem *hi* is used in Sanskrit to form the

Nom. and Acc. Singular Neut. **ki-***m*, with the ending of Neuter nouns. That *ki-t* was earlier in use seems probable from l. **qui-***d*. A Masc. **ki-***s* is also employed in the Veda compounds *na-***ki-***s*, 'no one;' *mâ-***ki-***s*, 'let no one.' This stem is used in **ki-***dṛçá*, 'like what;' **kíy-***at*, 'how much,' **hi**, 'for.' Here *h* is for *l*, as in *hṛd* compared with l. *cord-*, 'heart.' A similar change appears in s. **hy-***as* for *hi-us*, and this for *hi-ducs*, gr. χθές with θ inserted, l. **he-***ri* (*hesternus*), go. **gi-***s-tra*, a. s. **gy-***sterulic dæg*, e. **ye-***s-ter-day*. Some confirmation of this etymology of *hyas* is derived from s. *çvas*, perhaps for *ku-as*, 'to-morrow.' The abbreviation of words causes less difficulty in these cases than the application of the interrogative pronoun in such a sense. The familiar designations of time, however, generally involve the strangest modifications of language, e. g. s. *parut*, 'in last year,' from pára vatsá. **qui-***s* and **hi-***c* are Latin pronouns formed from this stem. The latter has *h* instead of the original guttural. The *u* is preserved in Gen. and Dat. **hu-***jus*, **hu-***ic*, and the original vowel lost as in *cu-jus*, *cu-i*. **qui-***a* is the regular Neuter plural, and **qu-***és* the old Masc. Plural. Plautus has Gen. plural **qui-***um*. The stem appears in **ci-***s*, **ci-***tra*, 'on this side,' retaining the guttural, but omitting the usual *u*. In **hi-***c*, 'this, the affixing of the guttural at the end may have been a reason for changing the initial to *h*.

This final particle appears in different forms, as *c, ce, que, quam, pe, piam*. It is from the same interrogative stem, and is often affixed to interrogative pronouns. The doubling of interrogatives destroys the interrogation, just as doubling a negative destroys the negation, e. g. *quis*, 'who?' compared with *quisque*, 'whoever;' *quid*, 'what,' compared with *quippe* (for quid-pe), 'what-

ever In Gothic *uh* is the representative of this parti
cle e g *hvas*=quis and *h az uh*=quis que *hio*=quæ
and *hio h*=quæ que Does not the English *i hoso*
preserve a remains of this compound? In that case *s*
would be the Nom sign and the particle reduced to a
vowel. As in the other examples quoted *who* is interro
gative and *uhos o* indefinite Of this compound form

$$
\begin{array}{ccccccccc}
e & h\ s & = & o\ h\ a_{\sim} & = & 1\ q \\
e & & = & \rho\ h & = & 1\ q \\
e\ wh & = & & h & h\ = & 1\ q\ q
\end{array}
$$

The Gothic Dat **hi** *n ma* Acc **hi** *na* Neut Acc
hi *ic* are from this same stem with the usual *h* for an
older *k* The adverb **hi** *die* a s **hi** *dhei* and **hi** *de*
as well as the English **hi** *thei* has the comparative
ending go **he** *i* in compounds *hii* (e g **hi** *i i* **hi** *r*
ja ts **hi** *i-ji th* second person Sin Dual Plur = come
here) and e **he** *e* have the same ending *i* as *hvai*
where *thai* there and exhibit the stem under
consideration as *hi he* In Anglo Saxon **he** *i thæ i*
hiæ i have the same ending In Greek τι ς τι ν ς
who? τι ς τι ι ς some one originally identical
have τ for κ like τ σσαρες π ντε so that the guttural
of this pronoun is in Greek represented by all three
classes of consonants e g κως τως τις So also κα ι
and for καιτ correspond to s *chet* for **cha** *it* the first
part of which *cha* for *l a* is used as a conjunction and
is the pronominal stem in its first form

c) DERIVATIVE ADJECTIVE PRONOUNS

207 This class of derivatives is formed by the
terminations *ka i ya iant ti d*

ka forms *mâma*-**ká,** 'my,' *tâva*-**ká,** 'thy,' from *mâma, tâva*; and in the Vedas *asmâ'*-**ka,** 'our,' *yushmâ'*-**ka,** 'your,' from *asmât, yushmât.*

î'ya forms *mad*-**i'ya,** 'my;' *tvad*-**i'ya,** 'thy;' *as-mad*-**i'ya,** 'our;' *yushmad*-**i'ya,** 'your;' *tad*-**i'ya,** 'belonging to that one;' *sarv*-**i'ya,** 'belonging to all.' The words derived from the personal pronouns are formed from the Ablative case, whose *t* is softened to *d* between vowels. In Greek the ending *-ιo-s* preserves this formative: *ἰδ-ιo-s*, 'one's own,' from *ιδ-*=1. *ιd*, or for *ἰδ*, and that for *σ-ιδ*=s. *svat*, from the possessive pronoun *sva-s*; *πo-ἰo-s*, 'of what kind;' *τo-ἰo-s*, 'of that kind;' *ὀ-ἰo-s*, 'of which kind.' Bopp thinks this formative *î'ya* is represented in Gothic by *a*, and the Ablative *d* (for *t*) by *r*, in the words *unsa-r*-**a,** *unka-r*-**a,** 'our;' *izva-r*-**a,** *iuqva-r*-**a,** 'your.' If so, the *r* in the English words *our, your*, is a representative of the Ablative sign *d* (for *t*).

vant in certain cases is regularly weakened to *vat* or *vân*. It forms *tâ'*-**vant,** 'so much;' *yâ'*-**vant,** 'how much;' *kiy*-**ant** (dropping *v*), *iy*-**ant.** The Zend has Acc. *ch*-**want**-*ěm,* Nom. *ch*-**wanż,** dropping the stem-vowel and preserving *v* (w) of the formative. In *τῆ-μo-s*, 'then,' *ῆ-μo-s*, 'when,' *v* is changed to *m*, and *μo* stands for s. *vat*. In Latin *qu*-**ant**-*vs*, 'how much,' *t*-**ant**-*us,* 'so much,' both the stem-vowel and *v* are dropped; whilst *v* is changed to *l*, and *a* to *e*, in *opu-***lent**-*us,* 'wealthy,' *viru*-**lent**-*vs*, 'poisonous,' etc. In Gothic this formative appears as *-laud-* in *hvé*-**laud**-s =quantus, and in *sva*-**laud**-s.

ti forms *ká*-**ti,** *yá*-**ti,** 'how much;' *tá*-**ti,** 'so much.' In Latin *quo*-**t,** 'how many;' *to*-**t,** 'so many,' where the final vowel is dropped.

drś (also *drśa, drksha*), from *drś*, 'to look,' forms •

many derivatives denoting resemblance to looking
like e g *hi* **drz** like what *ta* **drz** like tha
etc This *d* appears as *l* in several other languages
and *z* originally a guttural appears as *h* In Greek
we find πη λικ ος, how great τη λικ ος so great etc
In Latin *qua* **li** *s* like what *ta* **li** *s* such *æqua*
li *s* equal where *l* is dropped etc In Gothic *hie*
leik *s sva* **leik** *s* etc In Anglo Saxon *hwy* **lc** *swy* **lc**
In English *whi* **ch** *su* **ch** etc the formative is pre
served only in *ch* for the final guttural whilst the
meaning has been retained in *such* but lost in *which*
The full form however is preserved in the adjective
lil e The *l* is pre erved also in the corresponding Ger
man words *welch* **solch** and in the Scotch *quhilc*
The same formative also appears in the general ending
a s *lic* e *ly* e g *leof* **lic** *love* **ly**

Some possessive adjectives have only the pronominal
stem without any formative element e g s *sua s*
sua swa m gr εμο *s σo s o s σφo s* l *meu s tuu s*
suu s

d) PRONOMINAL ADVERBS

208 Pronominal Adverbs are formed by *tra dha*
tas da tham tha ti

tra forms adverbs of *place* e g s *a* **tra** here
ta **tra** there *amu* **tra** there *ku* **tra** where ?
ya **tra** where z *i* **thra** here *ava* **thra,** there
ya **thra** where l *ci*-**tra** on this side *ul* **tra**
on that side go *hva* **thro** whither *tha* **thro**
thither a s *huæ* **der** *thi* **der** (*d* probably pro
nounced as *dh*) e *whi* **ther** *thi* **ther**

dha also forms adverbs of *place* In Sanskrit it
assumes the form *ha* e g *i* **ha** here in the Vedas
-ku **ha,** where ? The preposition *sa* **ha** with is

similarly formed. z. *ha-***dha**, 'here.' gr. ἔν-Ͽα,
ἐνταῦ-Ͽα, 'here,' etc. l. perhaps *in-***de**, 'from there,'
etc. go. *hva-***th**, or *hva-***d**, 'where;' *olja-***th**, 'else-
where;' *jain-***d** (a. s. *geon-***d**, e. *yon-***der**), 'there;'
*i-***th**, 'but.'

tas forms adverbs expressing 'origin' or 'source,' e. g.
s. *kú-***tas**, 'whence?' *tá-***tas**, 'thence;' *yá-***tas**, 'whence.'
gr. πό-Ͽεν, 'whence:' τό-Ͽεν, 'thence:' ὅ-Ͽεν, 'whence.'
l. perhaps *(c)un-***de**, 'whence;' **de**, *in-***de**, 'thence.' The
full form appears in *swarga-***tás**; l. *cœli-***tus**, 'from
heaven;' gr. ἐν-τός, l. *in-***tus**, 'within.'

dâ forms adverbs of *time*, e. g. *ka-***dâ**′, 'when?'
*ta-***dâ**′, 'then;' *ya-***dâ**′, 'when;' *éka-***dâ**′, 'once;' *sa-***dâ**′,
'always;' *ta-***dâ**′*-nîm*, 'then;' *i-***dâ**′*-nîm*, 'now.' In
the Vêdas, *i-***dâ**′. gr. perhaps πó-τε, 'once;' τό-τε,
'then;' ὅ-τε, 'when;' perhaps also ἤ-δη, 'already,' for
ἤ-δη = *ya-dâ*′, with a long vowel, like ἤ-παρ for *ya-hrt*.

tham, thâ, ti, form adverbs of *manner*, e. g. s. *ka-***thám**, 'how?' *it-***thám**, 'so;' *anyá-***thâ**, 'otherwise;'
*tá-***thâ**, 'so;' *yá-***thâ**, 'as;' *sarvó-***thâ**, 'every way;'
*í-***ti**, 'so;' *á-***ti** (prep.), 'over,' 'beyond;' *u-***t** (prep.),
'upwards.' z. *ui-***ti**, 'so.' l. *i-***tem**, 'likewise;' *au-***tem**, 'but;' *i-***ta**, 'so;' *aliu-***ta**, *i-***ti**, *i-***ti**-*dem*, *u-***ti**,
*u-***ti**-*nam*, *u-***ti**-*que*. Sanskrit *áti* appears in l. *a-t-avus*,
'primitive ancestor.'

X VERBS

i) THE CONSTRUCTION OF VERBS

209   The verb is the most important part of speech
It sometimes forms a complete sentence by itself and no
opinion or determination or wish can be expressed with
out it   It undergoes a greater variety of changes than any
other word   In some American languages it is said that
a single verb may appear in six thousand different forms
So great a variety does not exist in any Indo European
language   yet in Sanskrit about a thousand possible
forms without including participles may be assigned to
one verb   In Greek and still more in Latin the number
is very much reduced   In modern languages the ana
lytical method has brought the verb to an almost
Chinese simplicity   An English verb for instance does
not assume more than half a dozen different forms   and
when we remember that the same word at one time
had all the varieties which are found in the Sanskrit
verb we gain some idea of the great change which has
been gradually made in the language of man   The
method pursued has been the analytical not the syn
thetical   The progress has been from the complex to
the simple   History does not present to us a language
growing out of a rude state developing new forms and
in process of time acquiring expansion and symmetry
On the contrary we see that it is most perfect in its
earlier history   We see its ornamental leaves gradually

fall off, its pliant branches broken, and ultimately but little remaining besides the gnarled trunk.

What is thus illustrated in language as a whole, is specially illustrated by the changes which the verb has undergone. Our examples, therefore, will necessarily be drawn chiefly from the older languages, and be comparatively few from those now spoken.

A verb may consist of several distinct elements. The Latin verb *amábantur*, for example, may be thus divided: am-â-ba-nt-u-r. Of these parts, *am* is the root which appears in all the forms; *amâ* is the stem of several tenses, etc.; *ba* is the sign of the Imperfect Tense; *nt* is the sign of the Third Person Plural; and *r* is the sign of the Passive Voice, whilst *u* is merely a connecting vowel inserted between the consonants *nt* and *r*, without affecting the sense of the word at all. Again, in *amârentur*, *re*, like *ba*, represents the Imperfect Tense, but differs from *ba* in denoting also the Conjunctive Mood.

In verbs, therefore, besides the root or stem, there may be expressions for Voice, Mood, Tense, and Person.

b) THE THREE VOICES.

210. There are three *Voices*, so far as the *meaning* of verbs is concerned. • The Sanskrit has separate forms for all three; in other languages there are only two forms, and in some only one.

The three forms are the Active, Middle, and Passive. In Sanskrit the Active is called *parasmaipadam*, 'affecting another,' from *parasmai*, Dative Singular of *para*, 'another,' and *padam*, from the root *pad*, 'fall,' 'fall upon.' It is so called because the action expressed by the verb is not aimed at the acting person.

but at some one else e g   I strike ι e not my elf but some one else   The Middle is called in Sanskrit *atmanej ada n*   self affecting from atmane Dative Singular of *atman* self and *pada n*   In this case the per on acting is also the object acted upon which as there ι no such verbal form in English has to be expressed by the addition of a pronoun e g   I strike *myself*

The term Active and Middle are clearly inappro p ate for the Middle is, as active as the so called Active and the word Middle in itself conveys no notion of the thing intended but merely that as in Greek where thι term is chiefly applied since it is in some thing like the Active and in some things like the Pa sive it may be conveniently supposed to be half way betwe n them   But these terms are so widely used and so generally understood that we shall adhere to them

211 In Sanskrit the Middle is distinguished from the Active by the endings affixed to the stem   e σ the Third Person Singular has *tι* in the Active and *te* (for ta+ι) in the Middle   The Passive has the same ending as the Middle but *ya* is inserted between it and the root   Hence for Mid *te* we have Pass *ya te* e g from the root **dwish**   hate   3 Sing Act *dwe sh tι* he hates (some one else)   Mid *dwesh te*   he hates h mself   Pass *dι esh ya te*   he is hated (by some one else)

In Greek the Middle form is also used to express the Passive voice   e g   3 Sing Act τυπτ ει (for τυπτ ε τι) he strikes (some one else)   Mid and Pass τυπτ ε ται he strikes himself   and   he is struck (by some one else)   There are however a few special Passive form

In Latin likewise one form serves for both Middle

and Passive verbs. It consists in affixing the reflexive pronoun *se* to the Active. We thus from the 3 Sing. Act. *amat* obtain *amat-u-se*, the *u* being introduced as a connecting vowel between the consonants, or *ta* may be a modified form of the pronoun used to express the Third Person Singular, which in Sanskrit is *ti*, in Greek σι. These latter instances make it probable that in Latin also, at an earlier period, a vowel followed such forms as *amat*. Which of the above explanations of *u* is adopted will depend on the period in the development of the language at which it is supposed the Middle and Passive were formed, whether before or after the loss of the vowel in the personal endings. It is, further, one of the euphonic laws of the Latin language, that *s* between two vowels is softened to *r*, and hence from amatuse we obtain amature, and from this again, by the very common loss of the final vowel, *amátur*. Such forms ending in *r* occur both as Deponent verbs, which exhibit instances of Middle verbs (i. e. verbs with both Active and Reflexive meaning), and as Passive verbs.

212. The above will perhaps throw some light upon the formation of the Middle verbs in Greek. For whilst in Latin *s* between two vowels is usually softened to *r*, in Greek, when occurring in the same position, it is entirely dropped. Indeed, the reflexive pronoun itself, in Greek, is already changed from σε or σι to έ; it is therefore easy to suppose that -τασι would become -ται. This view gains confirmation from the fact that it brings the Greek and Latin languages into agreement where they have been supposed to be utterly at variance; for they thus appear to agree, not only in each having one form for both voices, but in both having the same form.

Bopp regards the Middle forms in Sanskrit and
Greek as resulting from the repetition of the personal
pronouns *i e s me se te* etc for *man n sasi tati*
etc gr μq σαι τα etc for μαμι σασι τατι etc
But this supposes not only the dropping of *s* and *t*
which may perhaps be referred to general laws but also
of *i* which cannot be so justified   Besides whilst this
method *cannot* have originated the Latin forms the
employment of the reflexive pronoun *may* have origi-
nated both the Sanskrit and Greek as it certainly has
the Latin forms

The following are the endings of the singular in the
present tense

		S k t	G k	L t	
1	Act	mi	μι	m	
	Mid	e	μαι	r	from masi
2	Act	si	σι	s	
	Mid	se	σαι	ris	sasi
3	Act	ti	τι	t	
	Mid	te	ται	tur	tasi

In Sanskrit the First Person drops both *m* and *s* and
then contracts a + i as is usually done to *e* the Second
and Third Persons merely drop *s* and make the same
contraction of the vowels   In Greek all three persons
are perfectly regular there being in each only the
omission of σ which always takes place when it would
be between two vowels   The preservation of *a* though
in the Active it is weakened to ι is owing to the fact
that it was followed by a consonant   The same pheno
menon appears in Sanskrit *te* being for ta + i whilst the

Active ends in *ti*. In Latin the First Person is more mutilated than in Sanskrit. The personal pronoun is altogether lost, and only the consonant (*r*) of the reflexive pronoun preserved. In the Second Person the personal pronoun appears as *ri* for si, the *s* being changed to *r* between two vowels. This has caused the reflexive pronoun to retain its original consonant (*s*). The usual change to *r* is prevented by the fact that the previous syllable (*rise*) begins with *r*. In the Third Person the final vowel is dropped. The personal pronoun appears as *tu*, the reflexive as *r*.

In the examination of these few forms we find a striking illustration of the uses of Comparative Grammar. What one language has lost the others have preserved. Thus the original forms may be constructed out of the fragments which are scattered abroad in various places, and what has become obscure in each language may be explained by the help of the rest. In the above instances, the *m* which has disappeared from the Sanskrit (*é*) and the Latin (*r*) is preserved in the Greek (*μαι*), the final vowel which is lost in Latin remains in Sanskrit and Greek, and the *s* which they have lost the Latin has retained.

The forms in the plural are the following:

	Sanskrit.	Greek.	Latin.		
1. Act.	mas	μεν	mus		
Mid.	mahê	μεϑο	mur	from	mahasi
2. Act.	tha	τε	——		
Mid.	dhwê	σϑε	——	,,	dhwasi
3. Act.	nti	ντι	nt		
Mid.	ntê	νται	ntur	,,	ntasi

In Sanskrit all three persons have dropped   *as* in
the singular and contracted the vowels *a* *i* in a regular
way to *e*   In Greek the reflexive pronoun is entirely
lost except that the Third Person preserves *i* like the
Sanskrit   The *a* of the First Person also shows that it
was previously followed by the reflexive pronoun   From
the Latin language alone it is not easy to say how the
First Person (*i ui*) was formed   If the vowel was
originally short *mui* may be merely the termination of
the Active with the necessary change of *s* to *i* and the
following part dropped   *mui* being therefore for mur
uri   But the tendency in the language which caused the
final syllable of all words ending in one consonant to be
considered in later times as short leaves us at liberty
to suppose that the vowel in this case may have been
originally long and have arisen from the contraction of
two vowels   A similar change of *u* to *u* appears in
the ending of the Genitive Plural of nouns   (See
Sect **165** p 128)   The ending *mui* would thus be for
muui where the first *s* of mususi is dropped   and the
second preserved as *i* the final vowel being omitted as
usual.   This point which the other two languages above
referred to leave in doubt   may be cleared up by a re
ference to the Lithuanian which retains several forms
elsewhere lost   In that language the corresponding syl
lable is long which Schleicher (*Compendium* p 12²)
regards as exceptional and as resulting from the affix
ing of a consonant to the short vowel of the Active   It
is evidently the result of contracting two vowels to
gether   Lith *veza***me**=1 *vehi***mus** the final consonant
being lost   Lith *ve a***mes**=1 *vehi***mur**   The re
flexive pronoun is here preserved as *s* the rule in Latin
which changes it to *i*   or that in Greek by which it is
dropped not applying in this ca e in Lithuanian   The

vowel is long because originally the active *me* was not only followed by a consonant (*s*), but also by another vowel, as is manifest from the Active plural in the Védas, -*masi*. These two vowels contracted together form *é*, and by affixing the reflexive pronoun we 'obtain *més*= 1. *mâr*.

This view is confirmed by the second person singular in Lithuanian, e. g. *vezés* = 1. *veheris*, in which *é* does not arise from the preservation of an originally long vowel (Schleicher, *Comp.* p. 122), but from the contraction of two originally short ones; for both the vowels in the corresponding Latin word, and in similar forms in Sanskrit, are short. The pronominal sign, which is *s* in Sanskrit and *r* (between vowels) in Latin, is dropped in Lithuanian as it is in Greek, τύπτ-η being for τυπτ-εσαι, and that for τυπτ-εσασι. We have here again an illustration of the way in which languages supply each other's defects. The Greek preserves the vowel of the reflexive pronoun as *ι* subscriptum, and loses the consonant (η), whilst the Lithuanian preserves the consonant and loses the vowel (*és*). There is the same mutual relation between Greek and Latin in the Third Person Plural, i. e. νται from νтασι, and *ntur* from *nturi*.

The Second Person presents the greatest anomalies; but, whatever view be adopted as to the origin of the Middle forms, these anomalies still remain in Sanskrit and Greek, whilst the Latin language avoids them by satisfying itself with participial forms ending in -*mini* = gr. -μενοι, s. -*ma nâs*.

The dual forms are:

	S n k t			G k		
	1		3	1		3
Act	vas	thas	tas	(μεν)	τον	το
Mid	vahe	the	e	μεθον	σθον	σθον

* In Sanskrit as far as regards the reflexive pronoun the dual exactly coincides with the plural In Greek the *s* of the pronoun instead of being dropped as in the plural appears to have changed to *ν* as it did in the First Person Plural Active *μ ν* for *μες*

The secondary forms exhibit a still greater abbrevia tion than the primary in the Middle as well as the Active

In the singular we have

		Sa k t	G k	L t	
1	Act	m	*ν*	m	
	Mid	e ı	*μην*	r	from masi
2	Act	s	*s*	s	
	Mid.	thas	*σο*	rıs	sası
3	Act	t	—	t	
	Mid	ta	*το*	tur	tası

In Sanskrit the First Person has *e* as in the primary forms for the first conjugation but reduced to *ı* for the second The Second Person has *th* for the per onal pronoun which is *t* in the pronoun though *s* in the verbal forms The consonant of the reflexive pronoun is preserved but the vowel lost as in Latin In the Third Person *a* shows the pronoun formerly was added for when nothing followed *ta* was reduced to *tı* or *t*

In Greek, again, the First Person preserves μ of the personal pronoun, whilst s of the reflexive pronoun is changed to ν, just as in the Active First Person Plural, $-\mu\varepsilon\nu$ for $\mu\varepsilon s$. In this case, therefore, $\mu\eta\nu$ is for $\mu\eta s$ from $\mu\alpha\sigma\iota$. The o of the Second and Third Persons indicates the previous presence of the reflexive pronoun in the form of ν.

In Latin the secondary do not differ from the primary forms.

In the plural we have:

	Sanskrit	Greek	Latin.		
1. Act.	ma	$\mu\varepsilon\nu$	mus		
Mid.	mahi	$\mu\varepsilon\vartheta\alpha$	mur	from mahasi	
2. Act.	ta	$\tau\varepsilon$	—		
Mid.	dhwam	$\sigma\vartheta\varepsilon$	—	,,	dhwasi
3. Act.	n, s	ν	nt		
Mid.	nta	$\nu\tau o$	ntur	,,	ntasi

In Sanskrit the First and Third Persons have merely reduced $a + i$ of the primary forms to i and a. The Second Person preserves the consonant, and drops the vowel of the reflexive pronoun, as in the singular. The s, however, is reduced to a nasal (m), as in Greek.

In Greek the Third Person only differs from the primary forms; and here the o, as in the singular, indicates the previous presence of ν for σ of the reflexive pronoun.

In the dual we have:

	Sanskrit.			Greek.		
Act.	va	tam	tâm	($\mu\varepsilon\nu$)	$\tau o\nu$	$\tau\eta\nu$
Mid.	vahi	thâm	tâm	$\mu\varepsilon\vartheta o\nu$	$\sigma\vartheta o\nu$	$\sigma\vartheta\eta\nu$

The nasal in both these languages appears to be from the reflexive pronoun

c) PERSONS

• **213** The terminations which denote the First Second and Third Persons are amongst the most interesting and instructive phenomena of language They are most of them easily analysed and illustrate the progressive transformation of grammar They consist of the personal pronouns affixed to the verbal stems The personal endings appear sometimes in a fuller Sometimes in a more mutilated form and may accordingly be distinguished as *heavier* or primary and *lighter* or secondary endings The former are affixed to the principal tenses (in Greek) viz the Present Future and Perfect the latter to the secondary tenses viz the Augmented Preterites (Imperfects and Aorists) as well as the Non Indicative Moods except the Let and the Greek Conjunctive In Latin the First Person Singular preserves *m* of the lighter forms e g *amaba**m***

I was loving *ame**m*** I may love but has lost *mi* of the heavier forms e g *amo* I love *amabo* I shall love *amavi* I loved The other parts have dropped the additional vowel (1) of the heavier forms and thus the two classes in Latin are alike In Gothic the heavier forms have preserved *t* and *nt* (as *th* and *nd*) of *ti* and *nti* whilst the lighter have dropped the *t* which had no vowel after it Compare *bai**i*** i **th**

he beareth with s bhar a ti *bai**r** a* **nd** they bear with s bhár anti but *bai**r** ai* with s bhár e t he can bear As in Latin in the First Person Singular *mi* has disappeared but *m* has been preserved (as *u*) Compare

bair-a, ' I bear,' with s. bhár-â-mi, but *bair-a-***u,** ' I can bear,' with s. bhár-éy-am.

The First Person Singular.

214. The first personal pronoun has two stems, one for the Nominative case and the other for the oblique cases. The latter is *ma,* and in the weakened form *-mi* is employed in the primary, and still further reduced to *-m* in the secondary forms, as an affix, to denote the First Person Singular of verbs. The following instances are taken from the ten classes of Sanskrit verbs :

Primary Forms

1 t C j g t   P   t

Class 1

6	bodh̦ mi	I know
	tud a mi	I strike
4	zuch yu mi	I am pure
10	chor ʋyu mi	I steal

2 d C j t

Class 2

3	dwe sh mi	I hᴉte
	bifl u mi	I beᴧ
7	yunʋj mi	I join
5	chi no mi	I ᴦther
8	tᴧn o mi	I stretch
9	yu nʋ m	I l l

Secondary Forms

1 t (S gl f   1A gm t 1⁊P t t)

bodh ʋ m	I was knowing
ʋ tud a m	I wᴧs striking
ʋ zuch yʋ m	I wᴧs pure
ʋ ch r ᴧyᴧ m	I was stealing
ʋ dwesh ʋ m	I wᴧs hᴧting
ʋ⁊biblrᴧ ʋ m	I wᴧs beᴧing
ʋ yunʋj ʋ m	I wᴧs joining
a chɪ nʋv ʋ m	I wᴧs gᴧthering
ʠ tᴧn ʋv a m	I wᴧs stᴧetcl ing
ʋ ʋ I wᴧs l l ᴧ

The primary forms always lengthen the characteristic vowel of the first conjugation to $\bar{a}$, whilst the secondary forms leave the vowel short. The reason seems to be, that the heavier ending *mi* requires a stronger vowel to support it than the lighter ending *m*. The ending is made lighter in the secondary forms probably in consequence of the word being lengthened, here by the augment, and in the moods by the mood vowel.

Though the connecting vowel of the first conjugation is not lengthened in the secondary as it is in the primary forms, yet, on the other hand, a connecting vowel is introduced in the second conjugation, where *m* would otherwise follow a consonant or half-vowel.

In Greek the primary forms have -$\mu\iota$ in the verbs corresponding to the Sanskrit second conjugation, and ω in the verbs corresponding to the Sanskrit first conjugation, where the connecting vowel may be supposed to be lengthened, according to the analogy of the Sanskrit, and -$\mu\iota$ dropped. Thus we have $\ddot{\iota}\sigma\tau\eta$-$\mu\iota$, ' I stand, and $\phi\acute{\epsilon}\rho$-ω, ' I bear.' In the secondary forms -ν occurs as the usual Greek equivalent for the Sanskrit *m* when final, e. g. in the Imperfect $\ddot{\iota}\sigma\tau\eta$-$\nu$, ' I was standing,' and $\ddot{\epsilon}$-$\phi\epsilon\rho$-o-ν, ' I was bearing.'

In Latin this ending is almost universally lost, and -$\acute{o}$ left, like the ω in Greek verbs, in the primary forms, e. g. Present *st-o*, ' I stand ;' *fer-o*, ' I bear.' There are a few exceptions, such as *su*-**m** and *inqua*-**m**, and even there only *m*, not *mi*, is preserved. In the secondary forms *m* is preserved as in Sanskrit and Greek (ν), e. g. Imperfect *staba*-**m**, ' I was standing,' and *fereba*-**m**, ' I was bearing.'

In Gothic the primary forms present only one instance of the preservation of -*m* for mi in the substantive verb ι-**m**, ' I am ;' and thus the work of destruction has

gone further than even in Latin In the other instance
e g *bari a* I bear etc *a* is weaker than *ω* and o in
Greek and Latin The secondary forms however pre
serve *u* for m and in this vocalising of the consonant
the language has again proved weaker than the Latin
Compare *bari a* **u** I may bear with l fer a m

In Anglo Saxon *eo* **m** and in English *a* **m** we have
likewise the consonant of the original ending in a single
word only Elsewhere there is no trace of it

The following list illustrates the formation of the
First Person Singular

Sanskrit	Zend	Greek	Latin	Gothic	English
ás-mi	ah-mi	ἐσ-μί	su-m	i-m	a-m
bhár-â-mi	bar-â-mi	φέρ-ω	fer-o	bair-a	'I bear'
váh-â-mi	vaz-â-mi	ἔχ-ω	veh-o	vig-a	'I carry' / wag-gon
(a)syâ-m	hya-nm	ἐ(σ)ίη-ν	sie-m	sija-u	'I may be'
bháviêya-m	—	φέροι-(μι)	fera-m	bara-u	'I may bear'
ávaha-m	avazê-m	ἔίχο-ν	veheba-m	—	'I was carrying'

o 2

The First Person Plural

215 The nominative plural of the pronoun in the Vedas is *asme* probably for masme from ma sma including the pronominal particle *sma* If this be the origin of the verbal affix it has in most cases been greatly curtailed which would not be surprising for the addition of it as a whole would render the verbs very cumbersome and we have seen that language re sorts to many devices to prevent this The Vedas have the ending *masi* and the Zend *mahi* e g v *dad-***masi** and z *dade***mahi** we give They are the nearest approach to the supposed original masme In Sanskrit the primary forms have *mas* sometimes *ma* and the secondary forms regularly *ma* The connecting vowel of the first conjugation is lengthened as in the singular e g *bhar a* **mas** and *bhar a* **ma** we bear *sarp a* **mas** and *sarp a* **ma** we creep á bhar a ma we were bearing The Greek has μες in older and dia lectic words but elsewhere μεν in both primary and secondary forms The change of *s* to *ν* is unusual but not without example in other parts of the language e g ρπ ο μες we creep φερ ο μες we bear ἐ φερ ο μες we were bearing The Latin likewise has but one form of this affix i e *n us* e g *serp i* **mus** *fer i* **mus** *fer e ba* **mus** In Gothic the primary forms as in the singular have suffered greater loss than the secondary For the Sanskrit *-mas* of the former we find only *m* whilst the Sanskrit *ma* of the latter is preserved entire e g *bair a* **m** we bear and *bair ai* **ma,** we may bear We see here the same relation between the endings and the previous syllable as in the Sanskrit forms *bo dh a mi* and *a bodh a m* i e the

stronger vowel *ai* sustains the heavier ending *-ma*, and the weaker vowel *a* the lighter ending *-m*. In Anglo-Saxon there is *n* in some forms, which may, however, be the third person used for the first. The English has entirely lost this affix.

The following list illustrates the First Person Plural:

Sanskrit	Zend	Greek	Latin	Gothic	English
s-mas	—	ἐσ-μέν	su-mus	siju-m	'we are'
bhárá-mas	bará-mahi	φέρο-μεν	feri-mus	baira-m	'we bear'
váha-mas	—	ἔχο-μεν	vehi-mus	vigâ-m	'we carry'
syấ-ma	—	εἴη-μεν	sî-mus	sijai-ma	'we may be'
bhárê-ma	barai-ma	φέροι-μεν	ferâ-mus	bairai-ma	'we may bear'
avahâ-ma	avazâ-ma?	εὔχο-μεν	veheba-mus	—	{ 'we were carrying'

The First Person Dual

216 The Sanskrit has *vas* for the primary and *va* for the secondary forms differing from the plural affix in substituting *v* for *m* a change which takes place in other parts of speech as well   Indeed the plural of the first personal pronoun itself presents an instance of it in the nominative **v***ayam* may be supposed to be for **m***ayam* of which *am* is an affix as in *yuy am*   We have then *may* or *ma*+*i* which would be written *me* and differs from *masme* (ma sma+i the supposed original of the Veda form asme) only in the absence of the particle *sma* which is uniformly absent from the nominative in Sanskrit   *me* would then correspond to *te* Nom Plur of the third personal pronoun   If then *v* has resulted from an earlier *m* the dual may be regarded as sprung from the plural   The first conju gation lengthens the connecting vowel to *a* as in the singular and plural e g *bhar a* **vas** we two bear *bhar e* **va** we two may bear   In Gothic the Conjunc tive has *va* like the Sanskrit e g *bair ai* **va** we two may bear   the Present Ind *os* from *a as* and this from *a vas* e g *bair* **os** we two bear of which how ever properly only *as* belongs to the affix   the Prete rite has *u* for *uu* and this for *u v* and again for *u va* e g *mag* **u** we both could   Here again only one *u* belongs to the affix   These cases also furnish instances of the stronger syllable supporting the heavier ending and vice versa   In Anglo Saxon the verbs have no dual forms   In Greek the place of the First Person Dual is supplied by the forms of the First Person Plural   In Latin there is no dual

The following list illustrates the First Person Dual:

Sanskrit.	Gothic	English.
s-vas	sij-u	' we two are '
bhárâ-vas	bair-ôs	' we two bear '
váhâ-vas	vig-ôs	' we two carry '
syâ'-va	sijai-va	' we two may be '
bhárê-va	bairai-va	' we two may bear '
ávahâ-va	vag-û	' we two were carrying '

The Second Person Singular.

217. The second personal pronoun is in Sanskrit *twa* (probably from *tu*), a weakened form of which, *-si*, is employed as the verbal affix. The change of the consonant to *-s* is shown in the Greek pronoun, which is *sú*. The secondary forms further reduce this affix to *s*, and euphonic laws in some cases change si to *shi*. The corresponding forms in Zend are *-hi* (for si) and *-s*, which is sometimes represented by *-o* as in the nominative of nouns, e. g. s. *bhávasi*, z. *bavahi*, 'thou art,' v. *kṛṇó'-shi*, z. *kèrènûishi*, 'thou makest;' s. *ábrós* (ábravis), z. *mraus*, 'thou spakest;' s. *prá'zrávayas*, z. *frázrávayó* (ó for *as*), 'thou didst cause to hear.' In Greek the full form *-σι* is found in old and dialectic forms, e. g. Doric *ἐσ-σί*, 'thou art;' but usually the *ι* is drawn back into the previous syllable, which is frequently the case in the Greek language when the consonant between it and a preceding vowel is not dropped, e. g. *χαίρω* for *χαριω*. Thus both the primary and secondary forms in Greek end in *s*, e. g. *τύπτε-ις* (for *τυπτ-ε-σι*), ' thou strikest,' and *ἔτυπτε-ς*, 'thou wast striking.' In Latin likewise we have only *-s* in both primary

and secondary forms e g *ama***s** thou lovest *aꞁ ꞁa* *ba***s** thou wast loving   The vowel however ꞏn the primary forms may be supposed as ꞏn Greek to be incorporated ꞏn the preceding long syllable of the vowel stems but preserved as a connecting vowel after the consonant stems a ꞏn *leg* **ꞏs** thou ꞏeadest etc   The Gothic also has the two forms *ꞏs* and *s* ꞁꞏ *χε ꞏs* compared with go *vꞏga* **ꞏs** thou carrꞏest and gr *εꞏη s* with go *sꞏjaꞏ* **s** thou mayest be

The orꞏgꞏnal consonant of this affix was *t* (twa) and by ꞋꞋ euphonꞏc law ꞏn the Germanꞏc languages thꞏs letter causes *t* of the root to become *s* hence the Gothic verbs whose ꞏoots end ꞏn a dental termꞏnate ꞏn *st* ꞏn the Second Person Sꞏngular e g *ꞏaꞏ***st** thou knowest from the root *ꞏꞏd baꞏ***st** from the root *bhꞏd* The same compound *st* was afterwards added to other verbs and regarded as the normal endꞏng of the Second Person Sꞏngulaꞏ Thꞏs fact explaꞏns the *st* of the correspondꞏnꞇ English and German forms e g *brꞏng***st** *broughtest* *praꞏse***st** *praꞏsed***st**   In *aꞏt* the *s* has been softened to *ꞏ* The *st* ꞏn the Latin Perfects ꞏs owꞏng perhaps to a sꞏmꞏlar cause In the Greek forms *ησꝈa* thou wast and *oꞏσꝈa* thou knowest the dental affix of the latter has changed δ of *oꞏδa* to σ and ꞏn both cases σ has changed the followꞏng τ to *Ꝉ* In several words such as *εφησꞏꞏꝊa* thou aꞏdst for *εφης σꝊa* has been used ꞏn ꞏmꞏtation of *oꞏσꝊa* just as ꞏn Gothic *st* has been used for *t*

The Imperative of the second conjugatꞏon ꞏn Sanskrit and of the *μꞏ* conjugatꞏon ꞏn Greek has an aspꞏrated affix, ꞏ e *dhꞏ* (sometꞏmes weakened to *hꞏ*) ꞏn Sanskrit *dhꞏ* (sometꞏmes weakened to *dꞏ*) ꞏn Zend and *Ꝉꞏ* ꞏn Greek Thꞏs affix clearly contains the orꞏgꞏnal dental of the pronoun as does also the Latin Future Imperatꞏve

amá-**to,** 'love thou,' etc.   But whence comes the
aspiration in the former languages?   In Greek the
aspiration often serves as a substitute for σ.   It may
be so in this case : could it in the other languages, and,
if so, from whence came the *s* ?

The reduplicated Preterites have *-tha*, in which the
aspiration may have resulted from the euphonic influence
of some consonant in a particular case, and afterwards
have been generalised by a process similar to that which
gave rise to *st* in the Germanic languages.   Bopp traces
the aspiration to the *w* of the original pronoun.

The Second Person Singular is illustrated in the
following list :

Sanskrit.	Zend.	Greek.	Latin	Gothic	English.
á-si	a-hi	ἐσ-σί	e-s	i-s	a-rt
bháṛa-si	baṛa-hi	φέρε-ις	fer-s	baíṛ-is	beaṛe-st
váha-si	vaza-hi	ἔχε-ις	veh-is	vig-is	'thou carriest'
syâ-s	hyâ-o	εἴη-ς	siê-s	sijai-s	'thou mayst be'
bháṛê-s	barôi-s	φέροι-ς	feṛâ-s	baíṛai-s	'thou mayst bear'
ávaha-s	avaz-ô	εἴχε-ς	vehebâ-s	———	'thou wast carrying'

The Second Person Plural.

218. The Sanskrit and Zend both have *-tha* in the primary and *-ta* in the secondary forms; the Greek has *-τε*, the Latin *-tis*, and the Gothic *-th*, in both primary and secondary forms. The Latin has *-te* in the Imperative. There are no remains of it in English.

This ending seems to be formed from the singular of the personal pronoun, for the stem of the plural is *yu*. The aspiration in the Sanskrit and Zend may have originated in some euphonic peculiarity of these languages. It appears as a vocal aspirate in the Middle forms *dhwé* and *dhwam*. We have thus both aspirates in the plural, as we have noticed them in the singular. The Gothic *th* is the regular representative in that language of an older *t*. The Anglo-Saxon has likewise *th* (dh), *weorthadh*, 'ye become.' In many cases this form is lost, and the Third Person is used in its stead. The *s* in the Latin forms is difficult to account for. Bopp suggests that it may be a remains of the particle *sma* in a plural form, twasmé', similar to the asmé' (masmé) of the First Person Plural.

The following list contains examples of the Second Person Plural :

Sanskrit.	Zend.	Greek.	Latin.	Gothic	English
s-tha	——	ἐσ-τέ	es-tis	sıju-th	'ye are'
bhára-tha	bara-tha	φέρε-τε	fer-tis	baııı-th	'ye bear'
váha-tha	vaza-tha	ἔχε-τε	vehi-tis	vigı-th	'ye carry'
syá'-ta	——	εἴη-τε	sıê-tis	sıjai-th	'ye may be'
bhârê-ta	barai-ta	φέροι-τε	ferâ-tis	baiaı-th	'ye may bear'
ávaha-ta	avaza-ta	εἴχε-τε	vehebâ-tis	——	'ye were carrying'

The Second Person Dual.

219. The Sanskrit has -*thas* in the primary and -*tam* in the secondary forms; the Zend has -*thô* = s. *thas* in the primary forms; the Greek has -τον, and the Gothic -*ts*, in both. Sanskrit *m* and Greek *v*, as a lighter substitute for *s*, occur also in other instances. These forms are therefore consistent with one another, with the re-appearance of the aspirate in Sanskrit and Zend. As the dual and plural are of the same origin, the *s* in these cases is supposed to furnish an additional confirmation of the view suggested above in regard to the plural, that the affix was originally supplied by a form containing the particle *sma*.

The following list exhibits the endings of the Second Person Dual:

Sanskrit	Zend	Greek	Gothic.	English
s-thas	———	ἐσ-τόν	siju-ts	' ye two are '
bhára-thas	bara-thô ?	φέρε-τον	baira-ts	' ye two bear '
váha-thas	vaza-thô ?	ἔχε-τον	viga-ts	' ye two carry '
syá´-tam	———	εἴη-τον	sijai-ts	' ye two may be '
bháré-tam	———	φέροι-τον	bairai-ts	' ye two may bear '
ávaha-tam	———	εἴχε-τον	———	' ye two were carrying '

The Third Person Singular.

220. The third personal pronoun is *ta*. This, in Sanskrit, becomes -*ti* in the third person singular of the primary forms (-*tu* in the Imperative), and -*t* in the secondary forms, e. g. *dâdâti*, 'he gives;' *dadyâ't*, 'he may give.' In Zend the ending is -*ti* and *d*, e. g. *dadhâti* and *daidhyâd*. In Greek the primary forms have for the verbs in -μι σι, and for the verbs in -ω ι, the τ being dropped in accordance with a general euphonic law. The forms in which τ is changed to σ, and so preserved, are older than those in which the τ is lost. Both the first person and the third (-ω and ι), when compared with the earlier forms -μι and (-τι or) -σι, show the destructive effect of time. The original -τι is preserved in the substantive verb ἐστί, owing probably to its being preceded by a hard consonant. The ending has altogether disappeared from the secondary forms. According to the analogy of the other languages, and of the other personal endings in Greek, the secondary forms would end in -τ, but this letter, when final, is almost universally dropped, e. g. δίδωσι, 'he gives;' τύπτει, 'he strikes' (for τυπτε-τι); ἔτυπτε, 'he was striking' (for ετυπτε-τ). In Latin both forms have -*t*, the primary forms having dropped the final vowel, e. g. *dat* (comp. s. dâdâti) and *det* (comp. s. dadyâ't). The Gothic has -*th* in the primary forms, and nothing in the secondary. *th* is the regular Gothic representative of an older *t*. It thus agrees with the Latin in the primary forms, but has suffered greater loss in the secondary forms, e. g. *itith*, 'eateth,' and *siȷai*, compared with l. *siet*, 'he may be.' In Anglo-Saxon the primary forms have likewise *th*, which is lost in the secondary. The

older English agrees with the Gothic and Anglo Saxon e g *eate***th** in the Present and *ate* in the Past tense The *th* has in later times become reduced to *s* This change of sound has become generalised in the German language where *s* usually stands in place of *th* which would be the proper equivalent for an English *t* and for an older *d* e g l *quo***d** e *wha***t** ger *v a***s**

The following is a list of verbs in the Third Person Singular

Sanskrit.	Zend	Greek.	Latin.	Gothic	English.
âs-ti	aż-ti	ἐσ-τί	es-t	is-t	'he is'
bhâra-ti	barai-ti	φέρε-ι	fer-t	bairi-th	beare-th
vâha-ti	vazai-ti	ἔχε-ι	vehi-t	vigi-th	'he carries'
syâ-t	———	εἴη	sie-t	sijai	'he may be'
bhârê-t	baṟôi-ḍ	φέροι	fera-t	bairai	'he may bear'
âvaha-t	avaza-ḍ	εἴχε	veheba-t	———	'he was carrying'

P

The Third Person Plural

221   The Sanskrit has in the primary forms for the Third Per on Plural *iti* (*itu* in the Imperative) *n* is dropped in the reduplicated verbs of the third class probably to lighten the word at one end as the reduph cation makes t heavier at the other The secondary form have *i* only in some cases and *s* in others Where the stem ends in a consonant the connecting vowel *a* (*u* before *s*) is inserted e g *tishtha***nti** they stand   *lada***ti** they give   *abhai an* they were beuung *ti htheyus* they may stand   The Zend has *nti* and *n* in the two forms with a connecting *e* where necessary e g *l iste***nti** they stand and *his taye***n** they may stand   In Greek the primary forms have *νπι* in earlier examples with a connecting *o* after consonant stems   In later examples *τι* is changed to *σι* whilst *ν* is vocalised so that by it the preceding vowel is lengthened or changed to a diphthong   Hence the forms *ουσι* *ασι* e g Doric δ *δοντι* Attic *διδουσι* they give   Doric *στ νπι* Attic *ιστασι* they stand In the Epic *εντι* and the Attic *ε σι* *ε* alone repre sents the verbal root *ες* whilst in *σι ν* of the ending is represented by *ι*   In the Doric *τι* the connecting vowel *o* indicates the presence ori mally of the tull verbal root making *σο τι*   The econdai y forms have *ν* e ◡ *εφ ρον* they we e bearing   The Latin has preserved *nt* in both forms e ◡ *stant* they stand *ste***nt** they may stand   The Gothic has *nd* in the primary forms in which *d* may have been pronounced *dh* (the Gothic representative of an older *t*) as we have seen to be probable in other cases or as Bopp suggests the change may be referred to a preference for the combination *nd*   Th Gothic Preterite has *u n*

analogous to the Sanskrit -*u-s* in the Reduplicated
Pieterite, e. g. *haihaitun*, 'they were called,' com-
pared with s. *á'sus*, ' they were.' It is important to
notice the relation of the nasal and sibilant (*n* and *s*)
in these cases. We have had other instances in the
Greek forms for the First Person Plural (-*μεν* and -*μες*).
We shall find another illustration of it in the Third Per-
son Dual. The secondary forms have -*na*, in which they
agree as usual with the Greek, but are inferior to the
Latin in the loss of the *t*. No very satisfactory reason
appears for the final *a*. e. g. *sind*, 'they are;' *bai-
raina*, 'they may bear.' In Anglo-Saxon *nd* is only
partially preserved and in modern English not at all.

The following is a list of verbs in the Third Person
Plural:

Sanskrit.	Zend.	Greek.	Latin.	Gothic.	English.
sá-nti	hè-nti	ε-ἰσί	su-nt	si-nd	'they are'
bhára-nti	barè-nti	φέρο-νσι	feru-nt	baira-nd	'they bear'
váha-nti	vazè-nti	ἔχο-νσι	vehu-nt	viga-nd	'they carry'
syu-s	——	εἶε-ν	sie-nt	sijai-na	'they may be'
bháréyu-s	barayè-n	φέροιε-ν	fera-nt	bairai-na	'they may bear'
ávaha-n	avazè-n ?	εἶχο-ν	veheba-nt	——	'they were carrying'

The Third Person Dual.

222. The Third Person has -*tas* for the dual in the primary and -*tâm* in the secondary forms of Sanskrit verbs, e. g. *bháratas*, 'they two bear,' and *ábharatâm*, 'they two were bearing.' *m* and *s* seem here to be interchangeable, as we found *n* and *s* in the Second Person Plural. The long vowel in -tâm may be owing to a similar cause to that which produces it in the First Person Singular and Plural Present, i. e. -â-mi and -â-mas, though it seems as if there must at some time have been an addition to -*m* in the dual to give it this power; for in the secondary forms of the first person -*m* has not this power, but leaves the connecting vowel short, as in *ábharam*. In Zend the primary forms have -tô, e. g. *vakhsayatô*, 'they two (i. e. the cloud and the rain) cause to grow.' There are no instances of the secondary forms. In Greek we find -τον in the primary and -την or -των in the secondary forms, e. g. φέρετον, 'they two bear;' ἐφερίτην, 'they two were bearing;' φερέτων, 'let the two bear.' The nasal ν (the usual representative of the Sanskrit final *m*) occurs in all these instances. In Gothic there is no Third Person Dual.

The following list contains instances of the Third Person Dual:

Samskrit	Zend.	Greek.	English.
s-tas	ż-tô	ἐσ-τόν	'they two are'
bhára-tas	bara-tô ?	φέρε-τον	'they two bear'
váha-tas	vaza-tô ?	ἔχε-τον	'they two carry'
syấ-tâm	—	εἰή-την	'they two may be'
bhárê-tâm	—	φέροί-την	'they two may bear'
ávaha-tâm	—	εὐχέ-την	'they two were carrying'

d) THE WEIGHT OF THE PERSONAL ENDINGS.

223. An important source of change in words lies
in the difference in the weight of affixes which Bopp
discovered while endeavouring to account for the change
of vowels in the Germanic languages. He supposes the
influence of this principle to have been recognised, but
only to a small extent, before the separation of lan-
guages. The loss of the root-vowel of the substantive verb
before the heavy affixes in Sanskrit, at the same time
as it is retained in the Greek and some other languages,
shows that no such influence was allowed to the heavy
affixes as long as these languages formed one, e. g.:

Sanskrit.	Greek.
Singular.	
ás-mi, ' I am '	ἐμ-μί (from ἐσ-μί)
á-si	ἐσ-σί
ás-ti	ἐσ-τί
Plural.	
s-mas	ἐσ-μές
s-tha	ἐσ-τέ
s-ánti ·	(σ)-εντί
Dual.	
s-was	————
s-thas	ἐσ-τόν
s-tas	ἐσ-τόν

After the separation of languages each seems to have
followed the general tendency, but with some peculiar
modifications. The stem usually retains its original

form, or is strengthened or enlarged, when the ending is light; but when the ending is heavy, the stem is commonly abbreviated.

The following list shows this variety of operation :

	Sanskrit.	Zend.	Greek.	Latin.	English.
Singular.					
	dádâ-mi	dadhâ-mi	δίδω-μι	do	'I give'
	dádâ-si	dadhâ-hi	δίδω-ς	da-s	'thou givest'
	dádâ-ti	dadhâi-ti	δίδω-σι	da-t	'he gives'
Plural.					
	dad-mâs	dadê-mahi	δίδο-μες	da-mus	'we give'
	dat-thá	daz-ta?	δίδο-τε	da-tis	'you give'
	dád-a-ti	dad-e-nti	διδό-ῦσι	da-nt	'they give'
Dual.					
	dad-wâs	—	—	—	'we two give'
	dat-thás?	daz-tô?	δίδο-τον	—	'you two give'
	dat-tás	daz-tô?	δίδο-τον	—	'they two give'

The root-vowel is preserved, though in a shortened form (o), in the Greek plural and dual, whilst in Sanskrit the corresponding forms have entirely lost the root-vowel. This is accounted for by the fact that in Greek the endings are lighter upon the whole than in Sanskrit.

A similar difference appears in the Imperfect. In the Aorist, however, in cases where the reduplication is not employed, the Sanskrit preserved the root-vowel long, the Greek short, as follows:

	Imperfect.		Aorist.	
	Sanskrit	Greek	Sanskrit	Greek
Singular.				
	ádadâ-m	ἐδίδω-ν	ádâ-m	(ἔδω-ν)
	ádadâ-s	ἐδίδω-s	ádâ-s	(ἔδω-s)
	ádadâ-t	ἐδίδω(τ)	ádâ-t	(ἔδω-(τ))
Plural.				
	ádad-ma	ἐδίδο-μεs	ádâ-ma	ἔδο-μεs
	ádat-ta	ἐδίδο-τε	ádâ-ta	ἔδο-τε
	ádad-us	ἔδίδο-ν Epic for ἐδίδοσαν	ádl-us	ἔδο-ν Epic for ἔδο-σαν
Dual.				
	ádad-va	—	ádâ-va	—
	ádat-tam	ἐδίδο-τον	ádâ-tam	ἔδο-τον
	ádat-tâm	ἐδιδό-την	ádâ-tâm	ἐδό-την

In the above list the Sanskrit seems to have suf
fered no diminution of the Aori t stem (except in the
3rd Plur) probably because the words not having a
reduplication were not felt to need any such relief   In
the Greek a different principle seems to have been
followed and the same reduc ion of the stem has been
made in the plural and dual as in the Imperfect
A similar difference appears between the Sanskrit
bha ni   I shine   and the Greek φημ   I say   both
being from the same roo and conjugated in the Pre ent
and Imperf ct Indicative as follow

Sanskrit.	Greek.	Sanskrit	Greek
Present.		*Imperfect.*	
Singular.			
bhấ-mi, 'I shine'	$\phi\eta$-$\mu\acute{\iota}$, 'I say'	ábhâ-m	ἔφη-ν
bhấ-si	$\phi\acute{\eta}$-s for $\phi\eta$-$\sigma\iota$	ábhâ-s	ἔφη-σ(θα)
bhấ-ti	$\phi\eta$-$\sigma\acute{\iota}$ Doric $\phi\acute{a}$-$\tau\iota$	ábhâ-t	ἔφη-(τ)
Plural.			
bhâ-mâs	ϕa-$\mu\acute{\epsilon}\nu$	ábhâ-ma	ἔφα-μεν
bhâ-thá	ϕa-$\tau\acute{\epsilon}$	ábhâ-ta	ἔφα-τε
bhấ-nti	ϕa-$\sigma\acute{\iota}$ Doric ϕa-$\nu\tau\acute{\iota}$	ábhâ-n	ἔφα-ν Poet. for ἔφα-σαν
Dual.			
bhâ-vás	——	ábhâ-va	——
bhâ-thás	ϕa-$\tau\acute{o}\nu$	ábhâ-tam	ἔφα-τον
bhâ-tás	ϕa-$\tau\acute{o}\nu$	ábhâ-tâm	ἐφά-την

The omission of guna before heavy endings is an other illustration of their influence as in the following examples from the root ι

S krit		G k
Singular		
e mi	I go	ει μι
e shi		ει s
e ti		ει σι (τι)
Plural		
i mas		ι μεν
i tha		ι τε
y anti		ι ασι
Dual		
i vas		—
i thas		τον
i tas		ι τον

In Gothic the influence of the weight of the endings is manifest in such Preterites as *baıt* he bit where though the ending is entirely gone the guna is pre served as in the Sanskrit reduplicated form *bibl e da* whilst it is omitted in the plural *bit um* we bit as in the Sanskrit *bibhid ıma* The difference in Anglo Saxon is similar i e *bât* and *bit on* For the same reason the 2 Sing *ban st* thou didst bind has the stronger vowel *a* with the lighter ending originally only *t* whilst *bund u n* we bound has the weaker *u* with the heavier ending In Anglo Saxon the 2 Sing and the 1 Plur both have *u bund e* and *bund um* The same

cause admits or prevents guna in Gothic, just as we saw
to be the case in Sanskrit and Greek, e. g. from the root
vid :

Sanskrit.	Greek.	Gothic	Ang.-Sax.
Sing.			
vê'd-a, ' I know '	οἶδ-α	vait	wât
vê't-tha	οἶσ-θα	vais-t	wâs-t
vê'd-a	οἶδ-ε	vait	wât
Plur.			
vid-má	ἴδ-μεν	vit-u-m	wit-o-n
vid-á-(tha)	ἴσ-τε	vit-u-th	wit-e
vid-ús	ἴσ-α-σι	vit-u-n	wit-a-n
Dual.			
vid-vá	——	vit-û	——
vid-á-thus	ἴσ-τον	vit-u-ts	——
vid-á-tus	ἴσ-τον	——	——

The *o* in the Greek *οι* corresponds to Sanskrit *a*, as
well as the more usual *ε* does, and therefore *οι* is a pro-
per equivalent for s. *é* (for a + 1).

In some cases, especially in Sanskrit, endings which
were originally heavy appear as light ones, because
some of their letters have been lost or weakened, but
their original influence on the root remains; e. g. *ábi-*
bhr-*i* has a lighter ending now than *ábi***bhar**-*am*, yet
the latter has guna and the former not —the reason
being that the guna was prevented in ábibhri by the
Middle ending, of which *i* is only a slight remains. So
also *τε* in *ἴσ-τε* represents an originally heavier ending

than ϑα in οισ ϑα the former therefore prevents but the latter permits guna

Th following is a list of the two classes of endings in Sanskrit and Greek

Light	mi	si	ti	m	s	t
	μι	σ(ι)	τι	ν	s	(τ)
Heavy	vas	thas	tas	wa	tam	tam
	—	τον	τον	—	τον	την
	—	tha	nti	ma	ta	n(t)
	μεν	τ	ντι	μεν	τε	ν(τ)
	e	se	te	a i	thas	ta
	μαι	σαι	ται	μην	σο	το
	vahe	athe	ate	vahi	atham	atam
	μεϑον	σϑον	σϑον	μεϑον	σϑον	σϑην
	mahe	dhwe	nte	mahi	dhwam	nta
	μεϑα	σϑε	νται	μεϑα	σϑε	ντο

The law which thus reduces or enlarges the body of a word to counterbalance the greater or less weight which has to be added to the end appears to have been almost as powerful in Gothic a in Greek and Sanskrit whilst in Latin it has been comparatively inactive This adds another instance to several already noticed in which the Gothic resembles the Greek language more than it does the Latin

e) CONJUGATIONS

224 The Conjugation refers to the manner in which the stem and ending of verbs are united together Every variety of this kind however does not form a

distinct conjugation. Those methods which nearly resemble one another are classified together, and thus but few separate conjugations appear in each language. The conjugations of two different languages rarely coincide. The forms which are classed together in one language are distributed amongst two or three conjugations in another language; and those which in one are separated are united in the other.

The Sanskrit verbs, as we have already seen, are subdivided into ten classes. These classes, again, are arranged in two divisions forming two conjugations. The ground of this distinction is, that the verbs in one division insert some letter or letters between the root and the ending, whilst those in the other division add the ending immediately to the root.

The first conjugation, in which *a connecting letter or letters are inserted between the root and the ending,* includes four of the ten classes. These four classes are 1, 6, 4, and 10. The *first* inserts *a* and gunaes and accents the root-vowel, e. g. *bó'dh-**a**-ti,* 'he knows,' from the root *budh;* the *sixth* inserts an accented *a* likewise, but omits guna, e. g. *tud-á̱-ti,* 'he thumps' (Engl. *thud*), from *tud;* the *fourth* accents the root without guna, and inserts *ya,* e. g. *zúch-**ya**-ti,* 'he is clean,' from *zvch;* and the *tenth* inserts *aya* with guna, and accents the first syllable of *aya,* e. g. *chôr-**áya**-ti,* 'he steals,' from *chur.*

The second conjugation, which *affixes the ending immediately to the root,* or to the root enlarged by the syllable *na* (nu), includes the other six classes, i. e. 2, 3, 5, 7, 8, 9. The place of the accent is modified by the weight of the affixes. In this conjugation the *second* class gunaes the root, e. g. *dwê'sh-ti,* 'he hates,' from *dwish;* the *third* reduplicates and gunaes the

root e g *bibha ti* he bears from *bhr* the seie ith
inserts *ı a* in the root e g *yunaḳ ti* he joins from
yuj *ɉ* being changed to *ḳ* by the influence of the hard
consonant *t* the *fifth* and *eighth* which may be con
sideied as belonging to one and the same class affix *ıo*
the gunaed form of *nu* to the root e ₅ *chıno ti*
he gathers from *cl ı* and *tano ti* he stietches from
tan and the *ninth* adds *ı a* and (before heavy endings)
nı to the root e g *yuna ti* he binds and *yunî*
ϖ *as* we bind from *yu*

Strictly speaking there are only three classes viz 2
3 and which add the ending *ım nediately* to the root
and none to the mere unaltered root The ɔ 8 and 9
might very appiopriately be put with the first conju
gation as inserting a connecting syllable for *na* of the
ninth is as much a connecting syllable as *ya* of the
fourth class neither of them affecting the sense of the
word Indeed we find that these foims are unit d
under one conjugation in the Greek language

225 The ω conjugation in Greek answers to the
first in Sanskrit but it includes also several other forms
Those which have ε as a connecting vowel (*o* before
nasal) without guna like λεγ (e g λ γ ε τε ye say
λεγ *o* μεν we say) answer to the ixth class those
which also guna the root vowel like φυγ (e g φευγ ε τε
ye flee φευγ μεν we flee) answer to the s first
class Such verbs as τασσω belong to the s fourth
class for τασ σε τε ye order τασ σο με we oider
are for ταγ ιε τε ταγ ιο μεν in which ιε and *o* are equi
valent to *ya* The pure verbs ı e those in ω οω
αω belong to the s tenth class *y* being lost unless
perhaps *a* iepresents *ay* e g φ λ εε τε ve love δηλ
οε τε ye show and τιμ αε τε ye honour are for φιλ
α(y)a τε δηλ a(y)a τε and τιμ aya τε But the ω con

jugation also includes such words as δάκνω, 'I bite,' which belongs to the ninth class, with the vowel, however, short, e. g. δάκ-νε-τε. In τύπ-τε-τε we have the addition of *ta* to the root, which is found in none of the Sanskrit classes, as well as several other forms which are peculiar to the Greek, showing that in the arrangement of their conjugations each language has acted independently. The general character of the -ω conjugation is that ε (ο before nasals) connects the ending to the stem, as its equivalent *a* does in Sanskrit.

The -μι conjugation omits this connecting vowel, and adds the ending either (1) immediately to the root, without or with guna, e. g. ἐσ-τί, 'he is,' from ἐσ, εἶ-σι, 'he goes,' from ἰ; or (2) to the root enlarged by νυ (υ), as in the Sanskrit fifth and eighth classes, but without guna, unless the long quantity be considered an equivalent for guna, e. g. δείκ-νῦ-σι, 'he shows;' or (3) to the root enlarged by νη (νᾰ), answering to the ninth class in Sanskrit, e. g. δάμ-νη-σι, 'he tames.'

It thus appears that although the arrangement of the conjugations is based in these languages upon the same general principles, yet that the details were not settled till after they had become separate and independent of one another. This is singularly illustrated in the treatment of the root *yuj*, the Greek equivalent for which is ζυγ. The s. form *yú-na-k-ti* has no guna, and inserts *na* in the middle of the root *yu-j*, whilst the gr. form ζεύγ-νῦ-σι, 'he yokes,' has guna *in* the root, and adds νῦ *after* the root. These forms do not appear to be the representatives of the same common original, nor to be derived one from the other, but to be independently constructed out of similar materials and upon the same general principles.

226. The Latin language has four conjugations.

Of these howevei thiee i e the 1 2 and 4 are only
modifications of the tenth class in Sanskiit   They
thus severally resemble the Gieek verbs in $a\omega$ $\varepsilon\omega$
and $o\omega$ and like them should be classed in one conju
gation   The s aya becomes $a+a$ or a in the fiist
$a+i$ or e in the second and $o+i$ or i in the fourth
conjugation   The thiid conjugation in Latin include
a great variety of verbs taken indiscriminately fiom
almost all tne ten classes in Sanskrit   The fourth class
is reco nisable in the 1 Sin of such verbs as *capio*
though the other foims are ieduced to a resemblance
with those veib which belon to the sixth class e g
in *cap* **i**   *u*   onlv i inteivenes between the root and
endin   as in *leg* **i** *mus*

227 The Gothic language has preseived ya of the
fourth class more comr letely than is done in Latin in
the forms jc and ji pronounced ya and yi

The resemblance between Sanskiit and Gothic and
their difference from the Latin are seen in the following
instances

Sanskrit	Gothic	Latin
Sing.		
lúbh-yâ-mi, 'I desire'	haf-ja, 'I lift' (heave)	cap-i-o, 'I take'
lúbh-ya-si	haf-ji-s	cap-i-s
lúbh-ya-ti	haf-ji-th	cap-i-t
Plur.		
lúbh-yâ-mas	haf-ja-m	cap-i-mus
lúbh-ya-tha	haf-ji-th	cap-i-tis
lúbh-ya-nti	haf-ja-nd	cap-i-unt
Dual.		
lúbh-yâ-vas	haf-jô-s	
lúbh-ya-thas	haf-ja-ts	
lúbh-ya-tas	————	

f) FORMATION OF TENSES

228 In the original construction of language it is evident that there was the intention of marking the difference of time by a corresponding variety in the forms of expression In the Indo European languages light modifications in the forms of the same word were at first made to answer this purpose What was the primitive meaning of the letters or syllables added to form tenses it i not easy in all cases to determine but it is possible to classify the forms actually in use and by comparing them one with another to throw some light upon this difficult question

Whatever the primitive signs of tense were they have in progress of time been gradually mutilated and de royed so that they are almost as entirely obliterated from the leading languages of Western Europe a the original inhabitants are from its soil The analytical method has completely established its power in this re pect over a lar e part of the English language but its operation has been so symmetrical as well as com plete that the English language has a considerable advantage over most others with regard to the precision with which the *t r e* of an action can be expressed We mention the subject somewhat in detail here for the purpo e o reference when examining each particular ten e

229 The three main divisions of time viz Past Pr ent and Future are pre ented in at least four d fferen modifications expressed by distinct forms of peech For in re ard to each of these tenses an action i represented as incomplete or complete at that time Each of these incomplete or complete actions is either narrated or described Thus there are furnished four

varieties for each tense. We will take the word 'go' as an example:

Present Tense, Incomplete.	*Complete.*
Narrative: 'I go'	'I have gone'
Descriptive: 'I am going'	'I have been going'

Past Tense, Incomplete.	*Complete.*
Narrative: 'I went'	'I had gone'
Descriptive: 'I was going'	'I had been going'

Future Tense, Incomplete.	*Complete.*
Narrative: 'I shall go'	'I shall have gone'
Descriptive: 'I shall be going'	'I shall have been going'

The difference in regard to time between the primary divisions is very obvious: 'went' cannot be used of to-morrow, nor 'shall go' of yesterday. The distinctions expressed by the secondary divisions are not so great, but still they are considerable. For instance, the Narrative forms may express a single action, and the Descriptive a succession of actions; the former may denote what is done at once, the latter may express the continuance of an action through a long space of time. Again, the idea expressed by the Incomplete is very different from that expressed by the Complete forms. 'I gain an advantage' denotes that I am at present receiving the advantage, but may not have yet acquired its full amount. On the other hand, 'I have gained an advantage' denotes that I have no more of that advan-

tage to acquire but that at the present time the gain is
complete

There are many ways in which the difference between
these four modifications of the same tense might be
illustrated but the above will sufficiently answer the
purpose of showing how methodically and completely
the analytical method expresses the relations of time
We have no less than twelve different forms for as
many varieties of tense   The end is gained in modern
languages by means of auxiliary verbs which is charac
teristic of the analytical method but in most of the
languages under our present consideration the synthe
tical method is employed for the same purpose and
seems to have been employed exclusively in their original
structure   It consists in making various inflexions of
one verb answer the end which we have seen accom
plished by means of auxiliaries

The same primary distinctions of time viz Past
Present, and Future belong to both systems   We begin
with the Present as containing the simpler forms

The Present Tense

230 The incomplete and the complete are distin
guished as Present and Perfect but no distinction of form
is made in the older languages between the narrative
and descriptive of the Present

The first of the above twelve forms has no auxiliary
therefore properly no indication of time   It is doubtful
whether it is the same in the synthetical system   Some
suppose the strengthened forms of the Present tense were
intended to denote the present time others suppose that
they contain no such meaning but that the present is
sufficiently indicated by the absence of all reference to

any other time. We will first take an example of the Present Tense Indicative from the first Sanskrit conjugation, in order to illustrate this difference of opinion:

Sanskrit.	Zend.	Greek.	Latin	Gothic.	English
Singular.					
vâh-â-mi	vaz-â-mi	ἔχ-ω	veh-o	vig-a	'I carry'
vâh-a-si	vaz-a-hi	ἔχ-ε-ις	veh-i-s	vig-i-s	'thou carriest'
vâh-a-ti	vaz-ai-ti	ἔχ-ε-ι	veh-i-t	vig-i-th	'he carries'
Plural.					
vâh-â-mas	vaz-â-mahi	ἔχ-ο-μεν	veh-i-mus	vig-a-m	'we carry'
vâh-a-tha	vaz-a-tha	ἔχ-ε-τε	veh-i-tis	vig-i-th	'ye carry'
vâh-a-nti	vaz-ê-nti	ἔχ-ο-νσι	vch-u-nt	vig-a-nd	'they carry'
Dual.					
vâh-â-vas	——	——	——	vig-ô-s	'we two carry'
vâh-a-thas	vaz-a-thô ?	ἔχ-ε-τον	——	vig-a-ts	'ye two carry'
vâh-a-tas	vaz-a-tô	ἔχ-ε-τον	——	——	'they two carry'

The Anglo-Saxon *wœg-an* or *weg-an* has little trace
of the connecting vowel. In examining these forms,
we see that between the root of the verb and the
personal terminations different vowels are inserted,
which, however, have probably all originated from the
same. In Sanskrit they are *a* and (before Labials) *â* ;
in Zend *a*, (before Labials) *â*, and *è* ; in Greek *ε* and
(before Nasals) *o* ; in Latin *i* and (before *n*) *u* ; and in
Gothic *i* and *a*. The origin of them all is the *a* which
appears in Sanskrit. Is this merely a 'connecting'
vowel, or is it intended to express the Present tense?
It can hardly be the latter, because it is used also in the
Past, i. e. the Imperfect tense. Again, in other verbs,
syllables containing also a consonant are similarly in-
serted, and with a greater variety in Greek than in
Sanskrit. Are we, with Pott, to regard these as the
grammatical expressions of the present time? If so,
why are they also used in Past tenses (e. g. the Imper-
fect), and why is such a variety of forms adopted to
express one idea? On the other hand, if they are not
intended to express the relations of time, for what pur-
pose are they inserted?

In regard to guna, Bopp thus expresses himself in
the second edition of his *Vergl. Grammatik*, vol. ii.
p. 378:

'I cannot ascribe a grammatical meaning to the guna in the
conjugation of Sanskrit and its sister languages, but explain it as
resulting merely from a desire for fulness of form which causes
the lighter vowels *i* and *u* to be strengthened—to be propped up as
it were— by prefixing *a*, whilst *a* itself, being the heaviest vowel,
needs no foreign help. If, as is done by Pott (*Et Forsch* i 60),
guna be regarded in the Present and Imperfect as an expression
of the continuance of an action, a difficulty will be felt, which he
also found, in the fact that guna is not confined to these tenses,
but, in verbs with the lighter stem vowels *i* and *u*, accompanies

the root through almost all tenses and moods, not only in Sanskrit
but also in its sister languages in Europe, wherever this mode of
forming diphthongs is preserved at all   As, for example, in
Greek, λειπω and ςευγω cannot free themselves again from the ε
inserted in the roots λιπ, φυγ, except so far that ε is changed to ο
in λέλοιπα, and the Aorist ἔλιπον, ἔφυγον has the pure root, which I
cannot ascribe to the meaning of this Aorist, but to the circum-
stance that the Second Aorist generally inclines to preserve the
original form of the root, and hence sometimes has a lighter but
sometimes also a heavier vowel than the other tenses, as in ἔτραπον
as compared with ἔτρεψα and ἔτρεπον. In meaning, too, the Second
Aorist agrees with the First, and yet the latter retains the guna
if it belongs to the verb at all.   Considering this inclination of the
Second Aorist to preserve the root unchanged, the distinction
between such forms as ἔλιπον, ἔφυγον, ἔτυχον, and the Imperfect,
cannot be found in the circumstance that the action of the Aorist
is not represented as a lasting one, whilst, on the contrary. in the
Imperfect and Present continuance is symbolically indicated by
guna.'

If, then, as seems the more likely, these letters and
syllables inserted between the root and the personal
ending were not intended as expressions of time, the
Present tense contains no indication of time.   A state-
ment is supposed to refer to the present time when it
does not expressly refer to any other.   The fact that a
distinct indication of time is given with the Past and
the Future naturally suggests the idea that there may
be something analogous in the Present.   And yet it is
not difficult to conceive that a necessity for it might be
felt in the one case and not in the other.   We feel no
need for any expression to show that ' I go ' refers to
the present; but if it is to refer to the future, we feel the
need of adding a word to state this: ' I *shall* go.'   There
is, therefore, a close analogy in this between the old and
modern languages — between the synthetical and analy-
tical systems.   There is, moreover, a striking similarity

between this indication of tenses in verbs and the ex
pression of number in nouns for whilst the number
is specially indicated in the Plural and Dual there is
nothing to denote number in the Singular   We thus
see in the original representation of tense and number
the operation of the same mental laws

The Imperfect Tense

231 The Imperfect Tense generally coincides in
meaning with the first and second forms of the Past in
the table on page 229 viz   I went and I was going
The Imperfect includes the Single formed Augmented
Preterite in Sanskrit and the Imperfect in Greek and
Latin

The following examples are from the first conjuga
tion

Sanskrit.	Greek.	Latin.	English.
Singular.			
á-bhar-a-m	ἔ-φέρ-ο-ν	fer-e-ba-m	'I was carrying'
á-bhar-a-s	ἔ-φέρ-ε-ς	fer-e-ba-s	'thou wast carrying'
á-bhar-a-t	ἔ-φερ-ε	fer-e-ba-t	'he was carrying'
Plural.			
á-bhar-â-ma	ἐ-φέρ-ο-μεν	fer-e-ba-mus	'we were carrying'
á-bhar-a-ta.	ἐ-φέρ-ε-τε	fer-e-ba-tis	'ye were carrying'
á-bhar-a-n	ἔ-φερ-ο-ν	fer-e-ba-nt	'they were carrying'
Dual.			
á-bhar-â-va	——	——	'we two were carrying'
á-bhar-a-tam	ἐ-φέρ-ε-τον	——	'ye two were carrying'
á-bhar-a-tâm	ἐ-φέρ-έ-την	——	'they two were carrying'

The root and the connecting vowel ı e *bha a* are the same as ın the Present The personal endings diff⁴ only ın beıng the lıght ınstead of the heavy forms which ıs probably ıntended to compensate for the addı tıonal vowel which ıs prefixed to the word vız *a* ın Sans krıt and ın Greek This prefix which ıs called the *Augment* constitutes the only essentıal dıfference o⁴ the Imperfect from the Present ın form and as ıt ıs unıversally preserved ıt ıs evidently for the purpose of denotıng the dıfferen e ın meanıng which ıs also unıform The dıfference ıs that of *pa t* ınstead of *p ese ıt* tıme therefore the Augment ıs the sıgn of the Past tense

When the secondary endings were fully ıdentıfied wıth the Past tense ın the Indıcatıve they were felt to be a suffıcıent dıstınctıon from the Present and hence we find the Augment ın many cases omıtted In Zend the Augment ıs usually wantıng e g ın the fırst conju gatıon z *fradaızaem* I showed = s **ap**rade *ayam* I caused to show ın the second conjugatıon z *da danm* = s **a**dadhum I put In Latın whılst the Augment ıs omıtted a syllable ıs ınserted between the connectıng vowel and the personal endings This syllable *ba* ıs probably a part of the substantıve verb as ıt appears ın the Perfect *fuı* or an older form *fua* From thıs *ba* would come by changıng *u* to *b* and droppıng the precedıng consonant as ıs done ın **b** *ellum* for *d***u** *ellun ı* The omıssıon of the Augment and the ınsertıon at the same tıme of a weakened form of the substantıve verb are not confined to the Latın language The same ı done ın the Armenıan Lıthuanıan and Slavonıan In thıs howeveı all these languages rather resemble ın form the Greek Weak (Fırst) Aorıst and Sanskrıt Multıform Augmented Preterıte than the

Imperfect; for those also, as we shall see, insert the substantive verb, though they preserve the Augment at the same time. In the Latin third conjugation, the connecting vowel is lengthened, merely in imitation of the long vowel in the other conjugations.*

In the cases already noticed the Augment, preceding a consonant, forms an additional syllable, and it is therefore called the *Syllabic Augment.* When prefixed to words beginning with a vowel, it is usually contracted into one syllable with the initial vowel of the word. It then does not form an additional syllable, but increases the *time* of that already existing, and is hence called the *Temporal Augment.* This latter will be illustrated in the Imperfect tense of the substantive verb, whose root is *as-* :

Sanskrit	Greek.	Latin
Sing.		
â's-a-m, ' I was '	$\overset{\backsim}{\mathring{\eta}}(\sigma)$-ν	er-a-m
â's-î-s	$\mathring{\eta}(\sigma)$-s(ϑa)	ei-â-s
â's-î-t	$\overset{\backsim}{\mathring{\eta}}$-ν	er-a-t
	for ηε-ν(ησ-ε-ν)	
Plur.		
â's-ma	$\overset{\backsim}{\mathring{\eta}}(\sigma)$-μεν	ei-â-mus
â's-ta	$\overset{\backsim}{\mathring{\eta}}(\sigma)$-τε	er-â-tis
â's-a-n	$\overset{\backsim}{\mathring{\eta}}\sigma$-α-ν	er-a-nt
Dual.		
â's-va	——	——
â's-tam	$\overset{\backsim}{\mathring{\eta}}(\sigma)$-τον	——
â's-tâm	$\overset{\prime\prime}{\eta}(\sigma)$-την	——

In Sanskrit the connecting vowel *i* has been changed

from a probably in imitation of the Aorist   In Latin a and a resemble the usual Imperfect forms in ba and bu s becomes r as usual in Latin   hence er a m etc are for es a m etc   In Greek the s is dropped in a similar position and two syllables are then contracted into one e g $\eta\nu$ for $\eta o\nu$ and that for $\eta\sigma o\nu$ ηs for $\eta s s$ and that for $\sigma\epsilon s$ etc   In the first syllabl s a is for a as $_\circ r$ $\eta\sigma$ for $\epsilon\epsilon\sigma$ l er is short from the Augment not being used but a and a represent ba and ba in other Imperfects

232. The most satisfactory explanation of the Augment appears to be that which represents it as the negative particle applied to denote that an action *is not now* going on and thus suggesting that it *was* going on *before*   If we say   he shot a bird   it is evidently implied that he is *not now* shooting it   So in the celebrated phrase fuit Troja   the assertion of the past is made to imply a denial of the present   There was a Troy   or there has been a Troy   is used to denote   there is a Troy no longer   But if we say   he is not shooting   it does not suggest that he once was   and yet perhaps it is merely habit which makes the implied idea more natural in the one case than in the other It may be objected that the negative particle appears as *an* before a vowel and *a* before consonants whilst the Augment is a in both cases   but the appropriation of the particle to a special purpose may easily be supposed to have been connected with a modification of form

We have seen that in several languages where the Augment is omitted a part of the substantive verb is inserted as a characteristic of the Imperfect tense We can easily see how that verb may denote the futurity of an action for the difference between   he leaves and   he *is* to leave   shows it at once   The former ex

pression, if nothing be added to it, is supposed to apply to a present action or to a habit which includes the present; whilst the latter evidently excludes the present, and leads us almost instinctively to supply an expression of some future time, as ' to-morrow.' Again, it is probably only habit which makes it seem more natural to us that prefixing the substantive verb to the Infinitive' should form a Future Tense than a Past Tense. In Latin we shall see that it is inserted in the verb to form both.

We thus find two means of indicating past time in the Imperfect Tense, viz. the negative·particle in the Augment, and the substantive verb in the Latin *ba*.

In the Sanskrit word *anuttamás*, ' supreme,' used of the Divine Being, the negative particle *an* is prefixed to *uttamás*, the superlative of *ut*, and meaning ' highest;' but *uttamás* means the ' highest in comparison with the rest,' whilst *anuttamós* means ' not the highest in comparison with the rest,' because too high to be compared with any, and hence ' supreme.' So also *ané'ka*, 'many,' is formed by the negative particle being prefixed to *é'ka*, ' one,' so that ' not one' means ' many.' Indeed, · the same thing is illustrated in the phrase ' not one, but many.' Such an undoubted use of the negative particle removes part of the objection to supposing the Augment to be of the same origin.

The Aorist Tense.

233. The Aorist agrees generally in meaning with the first, in distinction from the second, of the four forms of the Past in the table on page 229, ' I went,' in distinction from ' I was going.' In this tense, however, we shall find both a great variety of forms and a considerable

diver ity of meanings　The term Aorist or　Indefinite
is most appropriate in the Greek language to which it
was originally applied and from which the name is de
rived　It is used to narrate　as the Imperfect is to
describe the events of the past　In Sanskrit the Aorist
comprises the meanings of the Greek Imperfect and
Aorist　and the Latin Perfect expresses the meaning
of the Greek Aori t and Perfect

In Sanskrit there are seven forms of the Aorist　hence
called the Multiform Augmented Preterite　They are
divided into two classes　the first of which correspond ng
to the　Weak　(or First) Aorist in Greek　includes fou
forms　the second class corresponding to the　Strong
(or Second) Aorist in Greek　includes three forms　The
Augment is prefixed in both classe

234　The four forms of the first　class all　agree in
this　that they insert the substantive verb *as* between
the root and the personal endings　The *first* form adds
the substantive verb *immediately* to the　root　but the
root is subject to guna or vriddhi　e g　*a nai* **sh** *i t*

he led　from *ni*　the *second* adds the subst verb to the
unaltered root　e g　*a dik* **sh** *a t*　he showed　from
di　the *third* unites the subst verb　to the root by
means of the vowel *i* but the root is subjec　to guna
or vriddhi as in the first form e　*a si* 1 **s**　*c m*

I bore　from　*u*　and the *for th* adds a reduplicated
form of the subst verb immediately to the　unaltered
root　e g　*a ya* **sish** *a m*　I went　from *ya*

Th s　increase in the body of the word subjects the
per onal endings to　great changes　so that in many
cases they are recognised with difficulty

The following list contains an example from each o
the four forms in the first class of Sanskrit Aorists

	1 'I led'	2 'I showed'	3 'I knew'	4 'I went'
Sing.	ánâi-sh-am	ádik-sh-am	ábôdh-ish-am	áyâ-sish-am
	ánâi-sh-îs	ádik-sh-as	ábôdh-î-s	áyâ-sî-s
	ánâi-sh-ît	ádik-sh-at	ábôdh-î-t	áyâ-sî-t
Plur.	ánâi-sh-ma	ádik-sh-âma	ábôdh-ish-ma	áyâ-sish-ma
	ánâi-sh-ta	ádik-sh-ata	ábôdh-ish-ta	áyâ-sish-ta
	ánâi-sh-us	ádik-sh-an	ábôdh-ish-us	áyâ-sish-us
Dual.	ánâi-sh-wa	ádik-sh-âva	ábôdh-ish-wa	áyâ-sish-wa
	ánâi-sh-ṭam	ádik-sh-atam	ábôdh-ish-tam	áyâ-sish-ṭam
	ánâi-sh-ṭâm	ádik-sh-atâm	ábôdh-ish-tâm	áyâ-sish-ṭâm

R

The Zend is but scantily supplied with examples of the Aorist tense The following however are instances in▪the fir t class *n anzta* he spoke like the s Mid amansta he thought from the root *man ɩ usta* he ro e from *ɩudh*

In Greek the Weak or First Aorist furnishes nu merous examples formed upon the same principles as those in Sanskrit but apparently by an independent action e g εδειξα I showed (εδεικ σ a) agrees with adik sh a m in adding the subst verb immediately to the root but differs from it in the root being ubject to guna ɩ e δεικ for δικ

In Latin this class of Aorists is represented by those Perfect tenses which are formed by adding *s* to the stem e g *dixi* (dic si) the Augment being lost as in all cases in Latin and the personal ending dropped as it is also in Greek in the 1st person sing *Dicsɩ* therefore is the exact counterpart in Latin of (*a*) *dik sh a* (*m*) in Sanskrit

In the following list these Greek and Latin words which represent large classes are compared with the Sanskrit second form

	Sa k t		G k	L t
Sing				
	adik sh am	I showed	δεικ σ a	dic s ɩ (dixi)
	adik sh as		εδεικ σ as	dic s isti
	ádik sh at		εδ ικ σ ε	dic s it
Plur				
	adik sh amɩ		εδεικ σ aμεν	dic s imus
	ádik sh ata		εδεικ σ aτε	dic s istis
	ádik sh an		εδεικ σ aν	dic s erunt

	Sanskrit.	Greek.	Latin.

Dual.

ádɪk-sh-âva	———	———
ádɪk-sh-atam	ἐδείκ-σ-ατον	———
ádɪk-sh-atâm	ἐδεικ-σ-άτην ,	———

The irregular personal endings of the second person sing. and plur. in Latin may be supposed to have sprung from some false analogy, or from some particular case of euphonic influence, as other irregularities have arisen (see **217**), rather than, as Bopp supposes, that they are the representatives of the Middle endings which in Sanskrit are -*thas* and -*dhwam.*

235. The second class of Sanskrit Aorists includes the 5, 6, and 7 forms.   They are distinguished from the first class by not inserting the substantive verb, and from the Imperfect by not using the stem of the present tense, but the pure or verbal root.   The *fifth* form affixes the personal endings to the root, e. g. *á-dâ-m,* ' I gave,' from *dâ;* the *sixth* inserts *a* between the root and the personal ending, e. g. *á-bhar-**a**-m,* 'I bore,' from *bhar* or *bhr;* the *seventh* reduplicates the root and inserts *a,* e. g. *á-papt-**a**-m,* 'I fell,' from *pat.*

In Greek the fifth is represented by such forms as ἔ-δω-ν, the sixth by such as ἔ-λιπ-o-ν, and the seventh by such as ἔ-πεφν-o-ν.

The last form is doubly represented in Latin by such Perfects as *cucurri, tutudi,* and *cecini,* and by such as have a long vowel in the first syllable, which may be explained from reduplication, e. g. *cêpi, frêgi, fêci, lêgi, fódi, scâbi, vîdi, fûgi,* for ce+ipi, etc., from cecipi, etc.

In Zend we have an instance of the seventh form in *urûrudhusha,* 'thou didst grow,' from *rudh,* where the

initial *u-* is for the augment. The instances of the other forms are hardly to be distinguished from the imperfect.

The following are instances of the fifth and sixth forms:

Sixth Form.

	Sanskrit.	Zend.	Greek.
Sing.	ábhar-a-m, 'I bore'	bar-ĕ-m	ἔφερ-ο-ν
	ábhar-a-s	bar-ô	ἔφερ-ε-ς
	ábhar-a-t	bar-a-d	ἔφερ-ε
Plur.	ábhar-â-ma	bar-â-ma	ἐφέρ-ο-μεν
	ábhar-a-ta	bar-a-ta	ἐφέρ-ε-τε
	ábhar-a-n	bar-ĕ-n	ἔφερ-ο-ν
Dual.	ábhar-â-va	—	—
	ábhar-a-tam	—	ἐφέρ-ε-τον
	ábhar-a-tâm	—	ἐφερ-έ-την

Fifth Form.

	Sanskrit.	Greek
Sing.	ádhâ-m, 'I put'	ἔθη-ν
	ádhâ-s	ἔθη-ς
	ádhâ-t	ἔθη-
Plur.	ádhâ-ma	ἔθε-μεν
	ádhâ-ta	ἔθε-τε
	ádhu-s	ἔθε-ν Ep. and Dor. for ἔθεσαν
Dual.	ádhâ-va	—
	ádhâ-tam	ἔθε-τον
	ádhâ-tâm	ἔθε-την

The Perfect Tense.

236. The Sanskrit and Greek both have reduplicated forms which differ from the seventh form of Aorists in having no augment, e. g.:

s. Aor. á-*paptam*, from pat ; Perf. *bubŏ'dha*, from budh ,
gr. „ έ-κεκλόμην,   „ κελ ;   „ κέκληκα,   „ καλ

The Sanskrit reduplicated forms generally correspond in meaning to the Greek Aorists. In Latin the reduplicated forms of the Perfect are mixed up with those of the Aorist under the general name of Perfect Tense; for, as the Latin language has no augment, these two tenses do not differ in form. They are also identical in meaning, and both equally include the Aorist and Perfect significations.

The meaning of the Greek Perfect is that of the third form of the Present, or the Completed Present, in the table on p. 229, 'I have gone.' This meaning is included in the Latin Perfect, but not in the Sanskrit. The latter language employs compound forms, such as *gató' smi* for gatas asmi, 'gone am I'=I have gone; *uktávân asmi*, 'possessed of speaking am I'= I have spoken. This employment of auxiliaries bears a striking resemblance to the general usage in modern languages. Indeed, the employment of a possessive adjective and of the verb *have*, which also denotes possession, indicates nearly the same mental process in both forms. In many instances the Sanskrit language resorts to a circumlocution, in which the passive participle and the instrumental case of the personal pronoun are used, e. g. *gatám* (*asti*) *asmâ'i*, 'done by me,' similar to such English forms as 'it has been done by me,' for 'I have done it.'

237 The mode of reduplication was perhap uni
form at first but it has become subject to great modi
fications in course of time   The reduplication now
appears more or less defective and obscured   In some
languages it an scarcely be recognised

In Sanskrit when the root begins with a single con
sonant the reduplication consists of that consonaut
and the vowel following it e **ba** *bandha*   I bound
from *bandh*   If however the consonant be an a pirate
or a guttural the aspiation is omitted and the guttural
changed to a palatal e **bu***bhauja*   I bent from
bhuj **cha***kaja*   I made from *kr*   When the root
begins with two consonants only the first is taken or
if the first be a sibilant and the second a mute the
second is taken e g **cha** *kanda*   I wept from
krand **pa** *sparza*   I touched from *spr*   When the
vowel is long it becomes short in the reduplication and
of two vowels only the second is taken e g **pi** *praya*
I loved from *pi* **bu** *bo dha*   I knew pies *bo
dami* for *baudami*   Thus the general principle of
taking the *first consonant and the vowel following it*
for the syllable of reduplication is subject only to such
modifications as render the syllable lighter and so make
its subordinate character perceptible to the ear

The Zend on the whole resembles the Sanskrit but
with considerable irregularity in the vowel of the re
duplicated syllable

In Greek the same general principle and modifica
tions hold good with the exception that when a verb
begins with a sibilant followed by a mute the sibilant
in the form of the *spiritus asper* is reduplicated e g
ε στηκα   I placed   So in αφέσταλκα for απ εσταλκα
I sent away   the aspiration is for the σ of redupli
cation   In many cases the reduplicated consonant is

dropped, as in ἔψαλκα, 'I sang;' ἔφθορα, 'I spoilt.'
The vowel is made light in ἔ-αγα, 'I broke;' ἐ-ούρηκα,
'minxi.' The general employment of this vowel ε in
reduplication, instead of the various vowels in Sanskrit,
shows a decay of vitality.

In Latin the reduplicated forms are fewer. They
follow the above rules with some exceptions. Two
initial consonants are preserved in reduplication, but
lightened in the root, e. g. **spo**-*pondi*, ' I engaged,' from
spondeo. The root vowel is retained in reduplication,
e. g. **tu**-*tudi*, ' I struck,' from *tundo*, except when it is
a, which, being the heaviest vowel, had more need of
being made lighter than the others : hence **ce**-*cini*,
' I sang,' from *cano* ; **ce**-*cidi*, ' I fell,' from *cado*.

In Gothic the reduplication is preserved, but the
compound tense is also used for the Perfect. The first
of two consonants is reduplicated ; but when a sibilant
is followed by a mute, they are both repeated, e. g.
skai-*skaith*, ' I separated.' The vowel always becomes
ai. The root vowel *ê* becomes *ô*, e. g. **gai**-*grôt*, ' I
wept,' except in **sai**-*zlêp*, 'I slept.' In *vôhs*, *stôth*,
from *vahsja*, *standa*, reduplication is omitted. The
general tendency to contract reduplication and root
into one syllable has produced in many the appearance
of unreduplicated verbs. Even in Sanskrit there is the
commencement of this reduction of two syllables to
one, e. g. **tên**-*ivá* for *tatan-iva* ; **sêd**-*imá*, 'we sat,' for
sasad-ima ; go. **sêt**-*um* for *saisat-um*.

In Anglo-Saxon *sæt* as compared with *sit*, and in
English *sat* as compared with *sit*, have a heavier vowel,
and only in this preserve an indication of the double
syllable.

238. The *personal endings* in Sanskrit are those of
the secondary forms, but still further weakened in con-

sequence of the word being burdened with a prefixed syllable They are S *a ı tha a* Pl *ı ma a u s* D *ı va a thus a tus* In Sanskrit the first and third persons singular and the second person plural end in *a* entirely losing the personal signs *ıı t* and *ta* The second and third per ons dual *thus tı s* approach nearer to the primary forms The third plural has *u s* pre serving *s* in place of the usual *ı* of the secondary forms *tha* in the second singular appears in some Greek forms as *ϑa* (οισ *ϑa*) and in Gothic as *th*

babı ndha I bound

Sing	Plur	Dual
babandh a	babandh ı ma	babandh ı va
babándh ı tha	babandh a	babandh a thus
babandh a	babandh u	babandh a tus

In Greek the per onal endings are S *a a s ε* Pl *a μεν a τε a σι* D — *a τον a το* The singular shows a similar abbreviation to the Sanskrit but ha the usual *s* in the second person The vowel *o* in the dual corresponds to *u* in Sanskrit The plural has the pri mary endings except that the third per on has *a* for *aν* instead of *oν* for *oν*

τετυτα I have struck

Sing	Plur	Dual
τ τυπ *a*	τετυπ *a μεν*	——
τετυπ *a s*	τετυπ *a τε*	τετυπ *a τον*
τετυπ *ε*	τετυπ *a σι*	τετυπ *a τον*

In the First Perfect κ, or ‘ in its stead, is inserted between the stem and the ending, e. g. πεφιλη-κ-α, τετυφ-α (for τετυπ-‘-α).

The Gothic has: S. —, t, —; Pl. u-m, u-th, u-n; D. û, u-ts, —. In the singular the connecting vowel is lost, which was preserved in Sanskrit and weakened in Greek. t of the second person agrees with the Sanskrit and differs from the Greek. The connecting vowel appears in the dual and plural as u. In the first person dual û is for uu, out of s. a-va. The second person plural preserves the consonant (th) as in Greek, which is lost in Sanskrit. The final vowel of the personal endings is in all cases lost. a of the root is changed to u in the plural, because of its being followed by heavier endings. When ı in the root is for an original a of the present, the past tense has ê, and this from the contraction of two syllables into one, as in Sanskrit tên-ımâ for tatan-ıma. So go. sêt-um for saısat-um.

In the following examples, as compared with the s. babándha, the reduplicated syllable is lost:

<div align="center">band, ‘ I bound.’</div>

Sing.	Plur.	Dual.
band	bund-u-m	bund-û
bans-t	bund-u-th	bund-u-ts
band	bund-u-n	———

In Anglo-Saxon the endings are reduced almost as much as in English, e. g. :

Sing. band, ‘ I bound ’
bund-e, ‘ thou boundest ’
band, ‘ he bound ’
Plur. bund-o-n, ‘ bound,’ for all persons.

The root vowels *i* and *u* have guna or vriddhi both
in Sanskrit and Gothic but only in the singular (that
is before the h ht endings) e g s *bibhaida*   I bit
from *bhid*   *bubhauja*   I bent (bow) from *bhuj*
go *bait* from *bit* **baug** from *bug*   Anglo Saxon *bat*
from *bit*   *beah* from *bug*   In the s *bhuj* j is for *k*   in
the go *bug* g is for *gh* as we have seen in several other
cases and this i represented by *u* in the e *bow*   The
Greek carries guna through all number e g πεποι-
θαμεν πεφευγαμεν etc

239 Verbs of the tenth class (i e those which
insert *aya*) as well as causative and derivative verbs
generally do not admit of the reduplication of their
roots but form a verbal noun in *a* to which in the
accusative case is affixed the Reduplicated Preterite
of the substantive verb *as* or *bhu* be or of *kr*   put

make e g *choraya masa* or choraya nchakara   he
was stealing   he made or did stealing for he
stole from *chur* *choraya*

Other verbs of a similar meaning to *l r* were used in
this way   One of them is *dha*   put or do which
appears in the formation of the pa t tenses of the Ger
manic languages The Gothic *sokidedum*   we sought
has in the ending *ded um* the reduplicated form of this
verb whilst the singular *sohi da*   I sought has only
one syllable   The Anglo Saxon *soh te* has *te*   *d* is
changed to *t* by the influence of the preceding conso
nant *h* which here has taken the place of *k*   Though
this consonant is not now pronounced in the word
sought yet the change which it once produced of *d* to *t*
is still preserved   In English the whole of this is re
duced to the letter *d* which is the regular or weak
form of the past tense e g *praise* **d** *boun* **d** etc

The verb thus abbreviated in the formation of a

particular tense is used separately in English to make emphatic tenses, both present and past, of other verbs, e. g. 'he *does* praise,' 'he *did* praise.' In *sôk-i-da, i* represents Sanskrit *aya*, but there are verbs in Gothic which affix the auxiliary immediately to the root, as in Sanskrit some verbs not belonging to the tenth class affix a similar auxiliary, especially such as begin with a vowel (except *â*) long by nature or position, e. g. *izâ'n-chakâra*, 'I ruled,' from *iz*. So in Gothic *brah-ta*, 'I brough-t;' *skul-da*, 'I shoul-d;' *vis-sa* for *vis-ta*, 'I knew,' 'I wist.' The changes in the *d* are caused by the preceding consonant. Four 'weak' verbs drop the *i* (for *aya*): *thah-ta*, 'though-t;' *bauh-ta*, 'bough-t;' *vaurh-ta*, 'wrough-t;' *suh-ta*, 'sough-t;' a. s. *thûh-te*, *bôh-te, uorh-te,* and *sôh-te*. The exact correspondence of the English with the Gothic and Anglo-Saxon forms is one of the most interesting phenomena of language, showing the preservation of a peculiar form through many centuries, whilst the language has been undergoing great changes in almost every department. These fossil-like remains, imbedded in modern speech, perpetuate the evidence of a former organism and vitality which no longer exist.

The same auxiliary, but not reduplicated, appears in the Greek First Aorist, and consequently also the First Future, Passive, as ϑη, e. g. ἐτύφ-ϑη-ν, 'I was struck ;' τυφ-ϑή-σομαι, 'I shall be struck.'

The following examples show the reduction of the reduplication and root to one syllable in the plural and dual :

San kr t		G thι
Sing		
sasa d a	I sat	(saι)sat
sasιt tha		(saι)sas t
sasa d a		saι sat
Plur		
sed ι ma		set u m
sed a		set u th
sed us		set u n
Dual		
sed ι v		set u ?
sed ι thus		set u ts
sed a tus		——

The following examples show the guna or vrıddhι in the sιn ulır (in Greek throughout the tense) with the loss of the reduplιcatιon syllable ιn Gothιc

S krιt		G th	G l	
Sιng				
bιbhaιd a	I bιt	baιt	πεποιϑ α	I trusted
bιbhaιd ι tha		baιs t	πεποιϑ α s	
bιbhaιd a		baιt	π ροιϑ ε	
Plur				
bιbhιd ι ma		bιt u m	πεποιϑ α μεν	
bιbhιd a		bιt u th	πεποιϑ α τε	
bιbhιd us		bιt u n	πεποιϑ ασι	
Dual				
bιbhιd ι va		bιt u	——	
bιbhιd ι thus		bιt u ts	πεποιϑ α τον	
bιbhιd a tus		——	πεποιϑ α τον	

The Pluperfect Tense.

240. The Pluperfect corresponds in meaning to the third form of the Past in the table on p. 229, i. e. ' I had gone.'

The Sanskrit has no special form for this tense, as it has none for the Perfect, from which the Pluperfect would be formed; and to express the meaning it employs a gerund or the Locative Absolute.

In Greek the Pluperfect is formed from the perfect by prefixing the augment, just as the imperfect is formed from the present. The endings cause some difficulty. -ειν, -εις, -ει, etc. may be for the imperfect tense of the substantive verb ην, ης, η, etc. This would involve a repetition of the augment which appears in the initial ε, but would make the Greek strikingly resemble the Latin forms *amav-eram*, ' I had loved,' etc. Or ει may be for *as*, in the same way as in εἰ-μί = s. **ás**-*mi*; and Latin *er* in *amav-***er**-*am* may be regarded also as equivalent to *as* in the Sanskrit verb. This view is confirmed by the third person plural, ἐτετύφ-εσ-αν, ' they had struck,' where the root of the substantive verb is preserved as in ἐσ-μέν. It is true that the σ in the same part of the imperfect and second aorist of verbs in μι (e. g. ἐδίδο-σ-αν, ' they were giving;' ἔδο-σ-αν, ' they gave'), and in the Latin perfect (e. g. *fuerunt*, ' they were'= fu-es-unt), at first sight suggests a doubt whether the σ in the third person plural of the Pluperfect implies its previous existence in the rest of the tense; yet the Latin Pluperfect again removes the doubt, for it has *er* in all parts of the tense. The absence of the substantive verb in the middle and passive may have been occasioned by the greater weight of the endings.

In Latin the uniform correspondence of the latter

part of the Pluperfect with the imperfect of the sub
stantive verb *er am* etc at once suggests that *er* is for
Sanskrit *as* in *asmi* The general practice of dropping
a preceding m favour of a succeeding vowel supports
the division am-av er am in preference to amave r am
whilst in the Conjunctive amav is sem *is* may be as
exact a representative of s *as* as *er* in the Indicative,
for s *a* often appears both as *i* and as *e* in Latin so that
the difference between *es ser i* and the latter part of
amav *is sem* would be unessential

Example

	(I had struck)	(I had loved)
	G k	L t
Sing	ετετυφ ει ν	amav er am
	ετετυφ ει s	amav er as
	ετετυφ ει	amav er at
Plur	ετετυφ-ει μεν	amav er amus
	ετετυφ ει τε	amav ei atis
	ετετυφ εσ αν	amav er ant

The connecting vowel *a* is needed in all the forms in
Latin because the consonant of *er* is everywhere pre
served but it is needed only in the 3 Plur in Greek
because σ of εσ is preserved only there

The Future Tense

240 *a* The Future is one of the principal modi
fications of time expressed by verbal forms In Sanskrit
there are two modes by which it is expressed

1 The first consists in affixing the present tense of
the substantive verb to the abbreviated form of the

Nom. Sing. Masc. of the participle in -târ, e. g. *dâtâ'si*
(dâtâ-asi), 'thou wilt give.' In the third person the sub-
stantive verb is generally omitted, but the participle
retains its full form in the dual and plural, e. g. :

Sing. datâ'-smi	Plur. datâ'-smas	Dual. datâ'-swas
datâ'-si	datâ'-stha	datâ'-sthas
datâ'	datâ'ras	datâ'râu

This participle is rarely used separately in a Future
sense.

2. The second method of expressing the Future is by
affixing *sya*, a form of the substantive verb, which does
not exist independently in Sanskrit as a Future tense,
but is found in the s. Potential *syâm, syâs, syât*, etc.,
and in the Latin *siém, siês, siêt*, etc. (later *sîm*, etc.), ·
and as a Future tense in *ero, eris*, etc., for *eso, esis*, etc.
The latter forms also preserve the root vowel of the
substantive verb, *er* = s. *as*.   The change of *s* to *r*
between two vowels is a common occurrence in Latin,
and appears in the imperfect tense of this same verb,
eram, etc.   In *ero, erunt*, the *i* is dropped, probably
through an imitation of the present tense, e. g. *rego*, 'I
rule;' *regunt*, 'they rule.'

In Greek this omission of *i* or *ι* for *y* has become
general ; yet there are sufficient remains of it to make
it probable that it was once universally employed, and
that the Greek, in this respect, started from the same
point as the Sanskrit.   The Futures in σι-ω and σι-ομαι,
and those with σσ, which is for σι, clearly point to the
Sanskrit *sy*.   The Doric Futures in σῶ are for σέω,
and that for σίω.   Illustrations of the modifications of
this old form are πραξίομεν, 'we shall do;' ἔσσομαι, 'I
shall be;' στελῶ, 'I shall send.'

In Latin the first and second conjugations have another form for the Future derived from the verb which is in Sanskrit *bhu* meaning to come into being l *fu* It is not used in Latin in the present tense but forms the pe fect *fu* i etc of the substantive verb It appears as *b b̟ b* is *b* it etc for u o u is u it etc and these for fu o fu is fu it by similar changes to those which made *b ellu* i out of du ellum The participle in *tu* is *tu* a *tu* um is also used in Latin like *tu* in Sanskrit in a future sense with or without the auxiliary verb and in that sense it distinguishes the genders which is not done by the Sanskrit participle

Future formed by *b*	Future formed by *tu*
(I shall love)	(I am going to love)
S ama b o	ama tur us (a um) sum
ama b is	ama tur us (a um) es
ama b it	ama tur us (a um) est
Pl ama b imus	ama tur i (æ a) sumus
ama b itis	ama tur i (æ a) estis
ama b unt	ama tur i (æ a) sunt

To return to the form *sya* used so extensively in the Future Tense we observe that it has the appearance of being compounded of *as* and *ya* the former being the root of the substantive verb and the latter from a root *ya* denoting go The root i go and (by Bopp) i wish are also supposed to be employed in forming this Future Some objection lies in the fact that either of these roots must be supposed to be enlarged in the Future *s ya* instead of being reduced as is generally the case e g *b* compared with the root *bhu* As to meaning the one would serve as well as the other

Indeed, *i* and *í* were probably identical, one form serving to express both meanings. The English word *go* has evidently also expressed the idea of 'to wish.' The evidence of it, like many other original meanings, is preserved in provincial or vulgar forms 'of expression, e. g. 'I did n't *go* to do it,' for 'I did n't *intend* to do it.' That this meaning may easily be adapted to express futurity is evident from such English phrases as 'he is *going* to do' etc., in the sense of 'he will do,' etc. We have here the substantive verb, 'is,' and the participle of the word 'go,' used to denote the same as the Sanskrit *s-ya* in the Future tense.

A similar use of *ya* appears in the formation of verbal participles corresponding to the Latin forms in -*dus*, and denoting necessity or duty, which differs little from futurity. In the Greek verbal adjectives in -τέος, denoting the same as the Latin forms in -*dus*, this very *ya* was perhaps originally contained (like the Doric Futures in -έω for -ίω, and that for -s-yâ-mi), i. e. τέος for τ-ιο-s, and this for τ-ya-s. These two meanings of *ya*, 'duty' and 'futurity,' meet together in the English word *shall*, which in the present tense is used to express the Future, 'I shall go;' and in the past, to denote duty, 'I should go.'

The Old Slavic, which preserves a few remains of the older forms, already resorts in general to the analytical method of employing auxiliary verbs, separately from the principal verb, to express the Future tense. Verbs denoting 'have,' 'begin,' 'will,' are commonly employed for this purpose. In Greek some traces of this method appear in the use of μέλλω, ἐθέλω, etc. μέλλω — sometimes with the Future Infinitive, e. g. θήσειν γὰρ ἔτ' ἔμελλεν ἐπ' ἄλγεα Τρωσίν, 'for he *was going* to inflict further woes upon the Trojans' (*Il.* ii..39); also

with the Present Infinitive e g μελλοντι δ αυτω
πολυθυτους τευχειν σφαγας κηρυξ απ οικων ικετο   but
there came to him from home as he *was going* to pre
pare multifarious sacrifices a herald   εθελω — e σ ει δε
θελησει τουτου τελευτησαντος s την θυγατερα ταυτην
αναβηναι η τυραννις   but if when he dies the royal
power *shall* come to this daughter   (*Her* 1 109)

In the following examples of the synthetical Future
an archaic Latin word is given (faxo)   In both Greek
and Latin ε and ι must be supposed to be the remains of
ya or they are the ordinary connecting vowel and *ya* is
entirely lost leaving only σ s as the sign of the Future

	Sanskrit.	Zend.	Greek.	Latin.	
Sing.					
	bhav-i-shyấ-mi	bû-shyê-mi	φύ-σο-ω	fac-s-o	da-b-o
	bhav-i-shyá-si	bû-shyê-hi	φύ-σε-ις	fac-si-s	da-bi-s
	bhav-i-shyá-ti	bû-shyê-iti	φύ-σε-ι	fac-si-t	da-bi-t
Plur.					
	bhav-i-shyấ-mas	bû-shyâ-mahi	φύ-σο-μεν	fac-si-mus	da-bi-mus
	bhav-i-shyá-tha	bû-shya-tha	φύ-σε-τε	fac-si-tis	da-bi-tis
	bhav-i-shyá-nti	bû-shya-nti	φύ-σο-νσι	fac-su-nt	da-bu-nt
Dual.					
	bhav-i-shyấ-vas	——	——	——	——
	bhav-i-shyá-thas	bû-shya-thô	φύ-σε-τον	——	——
	bhav-i-shyá-tas	bû-shya-tô	φύ-σε-τον	——	——

s 2

In Gothic ULFILAS translates Greek Futures by the
Conjunctive mood just as in Latin the third and fourth
conjugations have Conjunctive forms for the Future
tense   But the auxiliary have is also employed in
Gothic for the Future e g taujan *haba* (I have to do
= I shall do) for *ποιησω* 2 Cor xi 1⁹ visan *habaith* (he
ha to be = he will be) for *εσται* John xii 26   *Vauthit*
= a s *weoι dhe*   become is sometimes used for he
Future of the substantive verb but otherwise   will
and shall are employed

The Anglo Saxon has no special form for the Future

In English as in the Germanic languages generally the
synthetical Future is altogether lost   even go *cairtl* i
a s *weoι dhe* has disappeared whilst shall and will
are the usual auxiliaries   There are al o many phrases
employed to express futurity e g   I am going to do
I have to do   I am to do   I am about to do etc

We see therefore that even at a very early period in
the development of languages there existed a great
variety in the methods of expressing the relations of
time   The idea of time is one of the most abstract
that the human mind conceives and it is not surprising
that it was found very difficult to fix so subtle a thing in
verbal forms   The difficulty is manifest from the mul
titude of methods resorted to   The relation of a noun
to possession place instrumentality etc is much more
easily appreciated than the relation of a verb to the time
when an action takes place   and it is possible that the
former was determined much earlier than the latter The
original forms of the various ca es of nouns were evidently
the same in the great mass of Indo European languages
which is a strong evidence in favour of the conclusion
that the cases were fixed when all those languages were
one and the same   But the modes of indicating the

tenses, especially the Future tenses of verbs, whilst
they are so analogous as to show that they are the result
of the same mental laws, aie nevertheless so different
in verbal expression as to suggest the idea that it was
after the different tribes had separated from one another
that they began to define those relations more exactly
in their language. So long as the children of the
family remained under the parental roof, the Present
alone possessed importance; but when the brothers and
sisters separated and wandered into the wide world, the
memories of the Past and the aspirations of the Future
filled a larger space in their mental existence, and de-
manded a more definite expression.

g) MOODS.

s. Potential, gr. Optative, l. Conjunctive.

241. Among the almost infinite variety of circum-
stances which may accompany the expression of thought,
such as its being in the form of a command, a desire, a
supposition, etc., a few are distinguished by the special
forms of the verb. These special forms are called Moods,
or modes of expression. Even when formed by the
same elements, they differ considerably in name and
meaning in different languages.

The same original element, *yâ*, is employed in form-
ing the Potential of the second conjugation in Sanskrit,
the Optative of Greek verbs in $\mu\iota$, and the Present
Conjunctive in Latin, e. g. s. *dad-***yâ**'-*m*, gr. $\delta\iota\delta o$-*íη-ν*,
l. *d-ê-m*, 'I may give.' An older form exists of a few
Latin words, which brings that language sufficiently
near to the others; e. g. *du-**i**-m* preserves *î*, and *s-**iê**-m*
preserves *iê*, for the original *yâ*. All take part, more

or less in the gradual abbreviation of this Mood sign
In Sanskrit it becomes *yu* for *ya* in the third person
plural and *i* in the first conjugation forming *e* with
the class vowel *a*   In Zend it is *ya* in several place
In Greek it becomes *ιε* in the third person plural
(δ oo ιε ν they might give) and *ι* in the ω conjugation
(τυπτο ι μι   I might strike)   In Latin it is reduced
generally to *i* (*s* **1** *mus*   we may be) and in the th rd
person singular to *i* (*s* **1** *t*)   In Sanskrit Atmanepadam
(Middle) it is uniformly *i*   in the Greek Middle and
Passive *ι* (δ δο ι μην τυπτο ι μην)   In the past tense
of the Gothic Conjunctive this syllable assumes three
forms in which it appears successively abbreviated from
ya to *ya* *i* (*ei*) and *i* according to the general laws of
the language —1 *et* **ja** *u* for et ja m   I might eat
2 *et* **ei** *s* thou mightest eat   3 *et* **i** he might eat
In Anglo Saxon it remains only in the singular as *e*
e g *ic et* **e**   I might eat

Besides these three different Moods the same element
ya is used to form the Imperative in Old Slavic and
Lithuanian which adds further evidence that these
verbal forms if at all existing were but imperfectly
determined before the entire separation of languages

The following list will serve to illustrate these Moods
viz the Sanskrit and Zend Potential the Greek Opta
tive and the Latin and Gothic Conjunctive

First Conjugation.

	Sanskrit. 'I can give'	Zend.	Greek. 'I would give'	Latin 'I may give'	Gothic. 'I may eat'
Sing.	dad-yấ-m	daidh-ya-ñm	διδο-ίη-ν	du-i-m	êt-ja-u
	dad-yấ-s	daidh-yâ-o	διδο-ίη-s	du-î-s	êt-ei-s
	dad-yấ-t	daidh-yâ-ḍ	διδο-ίη	du-i-t	êt-i
Plur.	dad-yấ-ma	daidh-yâ-ma	διδο-ίη-μεν	du-î-mus	êt-ei-ma
	dad-yấ-ta	daidh-ya-ta	διδο-ίη-τε	du-î-tis	êt-en-th
	dad-yû-s	daidh-ya-n	διδο-ῖε-ν	du-i-nt	êt-ei-na
Dual.	dad-yấ-va	—	—	—	êt-ei-va
	dad-yấ-tam	—	διδο-ίη-τον	—	êt-ei-ts
	dad-yâ-tâm	—	διδο-ίή-την	—	—

Second Conjugation

Sanskrit	Zend	Greek	Latin	Gothic
I can bear		I would bear	I may bear	
bhár-e ya n	baɩ oɩ	φέρ οι (μι)	fer a m	baɩr ʋ u
bháɩ e s	bar oɩ s	φέρ οι s	feɩ ʋ s	baɩɩ aɩ s
bháɩ e t	bar oɩ d	φέρ οι	feɩ ʋ t	bʋɩɩ aɩ
bháɩr e mʋ	bar aɩ mʋ	φερ οι μεν	fe ʋ mus	baɩɩ ʋɩ mʋ
bháɩr e ta	bar aɩ ta	φερ οι τε	feɩ ɩ tɩs	baɩɩ aɩ th
bhar e yus	bʋr ay-ên	φερ οι εν	fer ǝ nt	bʋɩɩ aɩ na
bháɩɩ e va	——	——	——	baɩr aɩ va
bháɩɩ e tam	——	φέρ οι τ ν	——	bʋɩɩ aɩ ts
bhʋʋ e tam	——	φερ οι την	——	——

242. The tenth class in Sanskrit forms *ayê* from *aya-i* (*kâm*-**ayê**-*s*). In corresponding Greek verbs the *ι* appears separately, e. g. *τιμάο-ι-s, φιλέο-ι-s, δηλόο-ι-s,* and in Latin its effect is seen, e. g., in *amês* for *amá*-**i**-*s*. In some old Latin forms, as *verber*-**i**-*t*, the *yâ* is reduced to *i*, unless the vowel is long, and so *î* stands for *ê*. In the second and fourth Latin conjugations the mood-vowel is indicated only by the long quantity of, the *á, mon-eâ-s, aud-iâ-s*. The future of the third and fourth conjugations contains the same element, and a more regular indication of the half-vowel in *ê* for *ai* than is in *â*. In the Gothic strong conjugations the Conjunctive has *ai*, except in the first person singular, where *a* only occurs, just as in the Latin futures, e. g. 1. *fer*-**a**-*m, fer*-**ê**-*s*; go. *bair*-**a**-*u, bair*-**ai**-*s*. In the weak conjugations the mood-vowel disappears in *ó*, from *a*+*a*, and that from *aya*. The Conjunctive and Indicative thus coincide, except in the omission of the personal ending in the third singular Conjunctive.

The Imperative Mood.

243. The Imperative Mood, in its oldest forms, differs but little from the indicative. The personal endings are generally of the secondary class. In course of time they have become much abbreviated, and in some cases entirely dropped. In Sanskrit they are: S. -*á-ni, a-, a-tu*; Pl. *â-ma, a-ta, a-ntu*; Du. *á-va, a-tam, a-tâm*. Of these *ni, tu, ntu* belong to the primary class, and are but modifications of *ma, ta, nta*, which appear as *mi, ti, nti* in the indicative mood. The second person singular has lost the personal ending in the first conjugation, but in the second conjugation it has -*dhi*. Verbs of the tenth class in Sanskrit terminate

ın the second person sıngular ın *aya* whıch ın the cor
respondıng forms ın Greek becomes *aε* (*a*) *εε* (*εı*) *oε* (*ov*)
e g *τıμ α* *φıλ εı* *δηλ ov* ın Latın *a e ı* e g
am **a** *hab* **e** *aud* **î** go *ı* (*eı*) *o aı* e g *tam* **eı**
tame *laıg* **o** lıck *hab* **aı** have The second
person plural ın Latın perhaps preserves the secondary
form ın not havıng the final *s* whıch appears ın the
ındıcatıve The form wıth *to* both ın Greek (*τω*) and
Latın (*to*) to whıch the Veda *tat* has some resemblance
may have been suggested and occasıoned by the mood
whıch appears as Let ın the Vedas and as conjunctıve ın
Greek The long vowel whıch ıs characterıstıc of thıs
mood appears also ın the three fı st persons of the
second Sanskrıt conjugatıon

The followıng are examples of the Imperatıve

Sa k t	Zend	Greek	Lat n	Gothıc
Sıng				
2 bhar a	bar a	*φέρ ε*	fer	baıı
3 bhár a-tu	bar a tu	——	——	——
Plur				
2 bhar a-ta	bar a ta	*φερ ε-τε*	fer te	baır ı th
3 bhar a ntu	bar a ntu?	——	——	——
Dual				
2 bhár a tam	——	*φέρ ε τον*	——	baır a ts
3 bhár a-tam	——	*φερ ε των*	——	——
Let				
3 S váh a tat	——	*εχ έ τω*	veh ı to	——

The Conditional Mood.

244. There is a Conditional in Sanskrit, though it is rarely used. It appears to be formed from the auxiliary Future in *-syâm*, etc., by prefixing the augment and substituting the secondary for the primary personal endings, *a-syam*, etc., e. g. Future *dâsyâ'mi*, ' I shall give;' Conditional **a***dâ***syam**, ' I would give.' The Latin language seems to have resorted to a similar method in forming the Imperfect, Perfect, and Pluperfect Conjunctive, for the endings *-rem, rim,* and *es-sem* have the same relation to the Future in *-ro* that the Sanskrit *a-syam* has to -syâmi, e. g. :

Plup Conj	Imperf Conj	Perf Conj	Future
amâvi-sse-m	amâ-re-m	amâve-ri-m	amâve-ro
amâvi-ssê-s	amâ-1ê-s	amâve-ri-s	amâve-ri-s
amâvi-sse-t	amâ-1ê-t	amâve-ri-t	amâve-ri-t
amâvi-ssê-mus	amâ-1ê-mus	amâve-ri-mus	amâve-ri-mus
amâvi-ssê-tis	amâ-1ê-tis	amâve-ri-tis	amâve-ri-tis
amâvi-sse-nt	amâ-re-nt	amâve-ri-nt	amâve-ri-nt

The original *s* is preserved in the Pluperfect   in the other instances it is regularly changed to *r* in consequence of being between two vowels   The difference in the quantity and character of the vowel after *s* or *r* is the result of the different treatment of the original *ya*

245   There is a striking analogy to these Latin forms in the resemblance between the Future and Conditional in those modern languages which have a close relation to the Latin   It is the more interesting as exhibiting the operation of the synthetical principle in comparatively recent times and in languages which upon the whole follow the analytical method

	F tur	Imp f Opt
Italian	ame ro	ame rei
	ame rai	ame-resti
	ame ra	ame rebbe
	ame remo	ame remmo
	ame rete	ame reste
	ame ranno	ame rebbono
	F tur	C diti al
French	aime rai	aime rais
	aime ras	aime rais
	aime ra	aime rait
	aime rons	aime rions
	aime rez	aime riez
	aime ront	aime raient
	F tur	Imp f C j
Spanish	ama re	ama ria
	ama rás	ama rias
	ama rá	ama ria
	ama remos	ama riemos
	ama reis	ama riais
	ama ran	ama rian

The Passive Voice.

246. The Passive forms in Sanskrit, in the special tenses and perhaps originally also in the general tenses, have the accented syllable *yá* between the root and the personal endings which are of the secondary kind. The Passive, therefore, resembles the Middle of the fourth class, except in the place of the accent, e. g. Pass. *bhar-***yá**-*tê*, 'he is borne;' Mid. bhár-a-tê, 'he bears for himself.' As in this example the connecting vowel *a* is omitted, so in general the insertion of the.syllable *ya* causes the root to lose those increments which it admits in the special tenses of the Active and Middle, and sometimes also subjects the root to a further abbreviation, e. g.:

3 Sing Pres Pass	Middle.	Active		
Class 1				
budh-yá-tê	bó'dh-a-tê	bó'dh-a-ti from	*budh,*	'know'
Class 3.				
bhri-yá-tê	bibhr-tê'	bibhár-ti	,, *bhr* or *bhar,*	'bear'
Class 7				
yuj-yá-tê	yunk-tê'	yúnak-ti	,, *yuj,*	'join'
Class 5				
star-yá-tê	str-nu-tê'	str-nô'-ti	,, *str* or *star,*	'strew'

In the above instances the guna, reduplication, insertion of *na* and addition of *nu*, which are modifications of the root admitted in the Active and Middle, are absent from the Passive. In the following instances the root itself is also diminished: **uch**-*yá-tê*, 'is spoken,' from *vach*, 'speak;' **prch**-*yá-tê*, 'is asked,' from *prach*, 'ask;' **di**-*yá-tê*, 'is given,' from *dâ*, 'give;' z. ni-**dho**-*yêi-ntê*, 'are laid down,' from s. *ni-dhâ*, 'lay down.'

This form of the Passive which is probably from the root *yo* = go is general in Sanskrit and extensively used in Zend but is rarely met with in the other languages The Latin verbs *morior* and *fio* present remains of it in the *i* In *fio* we have the root (*fu*) also in a diminished form as in the instances noticed above In Gothic *us hi* **ja** *na* (of which *us* is a preposition) enatum presupposes a Pres Ind *li ja* abbreviated from kin ja like s *ja ye* for *jar ye* That the root *ya* = go was the origin of this Passive formative is rendered the more probable from the fact that in Bengalee and Hindo tanee the Passive is expressed by the auxiliary verb go just as in English it is expressed by the verb be e g *lora yai* I go made = I am made The same verb is also used as an auxiliary in such Latin Passive forms as *amatum iri* etc

Causal Verbs

247 The most common form of Causal Verbs is that in which *aya* is found inserted between the root and the personal endings It corresponds exactly with the tenth class e g *lar* **aya** *mi* I cause to make from the root *kr* or *lar* This formative may have sprung from the root *i* wish for the expression I wish (you) to make may easily have come to mean I cause (you) to make The verb have in English has been similarly appropriated to a special meaning for I have (or have had) a house built is the same as I cause (or have caused) a house to be built and even I have built a house has come to mean I have had a house built

This formative appears as *ja* in the first class of Gothic weak verbs e g s *sad a***ya** *mi* go *sat* **ja** I

set,' from s. *sad*, go. *sat*, e. *sit*. So *lag-***ja**,' I lay,' from
lig-a, 'I lie;' *nas-***ja**, 'I make well,' from *nas*, 'to
get well;' *sanqv-***ja**, 'I cause to sink,' from *sinqv-a*,
'I sink' (of myself); *drank-***ja**, 'I cause to drink,' e.
drench, from *drink-a*, 'I drink.' In the English word
drench, although no part of the original *aya* is pre-
served, yet the influence of *y* is apparent in the change
of *k* to *ch*. The difference of formation between the
causative and non-causative verbs is indicated in English
in a few cases by the former having the heavier, the
latter the lighter vowel, e. g. *set*, *sit*; *lay*, *lie*; *drench*,
drink.

In Greek, $\kappa\alpha\lambda\acute{\epsilon}\omega$, 'I call' 'I cause to hear,' seems
to be a Causative of $\kappa\lambda\acute{v}-\omega$, 'I hear;' the root $\kappa\lambda v$ has
become $\kappa\alpha\lambda$, and ϵ represents the *aya* in Sanskrit, as
it generally represents *aya* of the tenth class in verbs
in $\acute{\epsilon}\omega$.

In Latin the long vowels â, ê, î of the first, second,
and fourth conjugations represent the s. *aya* of the
tenth class, and amongst them are some Causatives, e. g.
*nec-***â***-re*, 'cause to die;' *sed-***â***-re*, 'set,' 'cause to sit;'
*plor-***â***-re*, 'weep,' 'cause to flow;' *mon-***ê***-re*, 'cause to
think;' *sop-***î***-re*, 'cause to sleep.'

The following instances will show the agreement
between the Sanskrit and the Latin:

	P Ind Skrt	Lt	Pt Skt	C J Łt
Sing	svāp ayā mi (I cause to sleep)	sōp iō	svāp ye yam	sōp iā m
	svāp ya si	sōp is	svāp ye ṣ	sōp iā s
	svāp yṛ ti	sōp it	svāp yeč t	sōp iā t
Plur	svāp yṛ mṛs	sōp imus	svāp ye mč	sōp iā mus
	svāp ĭya tha	sōp itis	svāp ye tč	sōp iā tis
	svāp ĭya nti	sōp iint	svāp ye yuṣ	sōp iā nt

After roots in *a p* is inserted in Sanskrit and *l* (c)
in Latin e g *yap aya mi* I cause to go from *ya* is
the same as l *jac i o* The *i* is reduced in quantity
and the whole assimilated to the third conjugation as in
capio So also s *bhav aya mi* I cause to be is the
same as the l *fac i o* where *c* is for *v* as in *vixi*
(*vic si*) from *vivo jnap aya-mi* I cause to know

(from *ṛá*); l̥ *duc-e-o*. In *ráp-áyá-mi*, 'I cause to
go,' 'move' (from *ṛá*) = l. *rap-i-o*, the Latin pre-
serves *p*.

In some cases *l* is inserted in Sanskrit Causatives,
and corresponding forms are found in Greek, e. g.
s. *pál-áyá-mi*, from *pá*, 'to rule.' So in Greek, βάλλω
for βαλ-*y*-ω, 'I cause to go,' from βά̓ (in ἔ-βη-ν, etc.);
στέλλω, 'I cause to stand,' for στελ-*y*-ω, from στά̓
(in ἔ-στη-ν, etc.); ἰάλλω, 'I cause to go,' for ἰαλ-*y*-ω,
from yá (2 Aor. of ἵημι has ἑ-, where the *spiritus asper*
is for *y*), like the Latin *jac-i-o*.

Desideratives.

248. Desideratives are formed by inserting between
the reduplicated form of the root and the personal
endings *sa* in Sanskrit, σκε in Greek, and *sci* in
Latin, of which the following are illustrations :

Pres. Sanskrit.	Greek.	Latin.	Impeaf Sanskrit.	Greek.
Sing.				
jíjnâ-sâ-mi	γιγνώ-σκω	no-sco	ájijnâ-sa-m	ἐγίγνω-σκο-ν
jíjnâ-sa-si	γιγνώ-σκε-ις	no-sci-s	ájijnâ-sa-s	ἐγίγνω-σκε-ς
jíjnâ-sa-ti	γιγνώ-σκε-ι	no-sci-t	ájijnâ-sa-t	ἐγίγνω-σκε
Plur.				
jíjnâ-sâ-mas	γιγνώ-σκο-μεν	no-sci-mus	ájijnâ-sâ-ma	ἐγιγνώ-σκο-μεν
jíjnâ-sa-tha	γιγνώ-σκε-τε	no-sci-tis	ájijnâ-sa-ta	ἐγιγνώ-σκε-τε
jíjnâ-sa-nti	γιγνώ-σκο-νσι	no-scu-nt	ájijnâ-sa-n	ἐγίγνω-σκο-ν
Dual.				
jíjnâ-sâ-vas	——	——	ájijnâ-sâ-va	——
jíjnâ-sa-thas	γιγνώ-σκε-τον	——	ájijnâ-sa-tam	ἐγιγνώ-σκε-τον
jíjnâ-sa-tas	γιγνώ-σκε-τον	——	ájijnâ-sa-tâm	ἐγιγνώ-σκέ-την

The Sanskrit changes the original guttural *g* to the palatal *j* in *jijnâ-sâmi*, 'I desire to know.' The Latin loses the reduplication and (except in some compounds, e. g. *ignosco*) the first consonant of the root. In many of the words which have this form, the Desiderative meaning has not been preserved. In Latin the root *vid* has produced the Desiderative *vî-si* by adding *si* = s. *sa*, and not *sci* as in the former instances. The English form *know* confirms the view that the original consonant was *g*, and the *w*, which appears also in the a. s. *cnâw-an*, is probably the remains of the Desiderative form. The formative *sa* is reduced in Sanskrit for the general tenses to *s*, and is altogether absent from those tenses in Greek and Latin.

Intensives.

249. In the Intensives the personal endings are sometimes connected with the reduplicated root by *î*. The vowel in the syllable of reduplication also, contrary to the usual practice, is made as heavy as that in the root syllable, or even heavier, e. g. *vê'vêz-mi*, from *viz*, 'to enter;' *lô'lôp-mi*, from *lup*, 'cut off,' 'lop.' Instances in Greek are τωθάζ-ω, παιπάλ-λω, ποιπνύ-ω, etc. If the root begins with a vowel, the whole syllable is repeated in the reduplication; but if the vowel is short, it is lengthened in the root syllable, e. g. *atât*, from *at*, 'go;' *azâz*, from *az*, 'eat.' To these correspond some nominal forms in Greek, e. g. ἀγωγ-ός, 'guide;' ἀγωγ-εύς, 'remover.' But the vowel is shortened in the root of ὀνίν-ημι, ὀπιπτ-εύω, ἀτιτ-άλλω, and not lengthened in ἀλαλ-άζω, ἐλελ-ίζω. Those which begin with a consonant, if they end in a nasal, do not lengthen the root vowel, e. g. s. *jañgam*, from *gam*, 'go;' gr. παμφαίνω,

I shine brightly ‿o *ganga* I ʿo a s *ga ɪge* If
the root end in a liquid this is either changed to a nasal
or di placed by a nasal e ‿ *chanchal* from *chal* move
ɪ *amphul* from *phal* burst *chanchaɪ* from *chaɪ*
go In Greek τ μπλημι I fill π μπρημ I set
on fire etc Sometimes however the liquid remains
unchanged in Greek e σ μαρμαιρω I ‿limmer
βορβ ρυζω I rumble &c A f w Intensive form
have been discovered in Zend and in Latin as *jɪnj ɪ e*
to gaggle

h) DENOMINATIVES

250 Denominatives ɪ e verbs formed from nouns
(*de nominibus*) have in Sanskrit *ya ava sya* or *ɪsya*
inserted between the nominal stem and the personal
ending If however the nominal stem ends in a vowel
it is dropped e ‿ s *l uma* **aya** *sɪ* thou playest
from *kumaɪa* boy *sul h* **aya** *sɪ* thou delightest
from *sukha* delight *yol tɪ* **aya** *sɪ* thou embracest
from *yo l tɪa* band *ksham* **aya** *sɪ* thou enduiest
from *l shama* endurance

The examples in Latin are numerous in the first
second and fourth conjugations where *a e ɪ* represent
Sanskrit *aya* e σ *laud* **a** thou praisest from lauda
praise *can* **e** *s* thou art grey from canu s grey
sit ɪ s thou thirstest from siti s thirst In nouns
of the fourth declension *u* shows more tenacity in keep
in‿ its place in the Denominatives e g *fluctu* **a** *s*
thou wavest from fluctu s wave

In Greek also many of those verbs which resemble
the 10th class in Sanskrit are Denominatives ɪ e such as
end in *aω εω oω aζω ɪζω* In these cases the s
aya is represented by different letters Examples are
τιμας(for τιμα ε ɪs) thou honourest from τιμη πολεμεɪs

(for πολεμε-ε-ις), 'thou warrest,' from πόλεμο-s: δηλοῖς (for δηλο-ε-ις), 'thou makest manifest,' from δῆλο-s, 'manifest,' ἀγοράζεις (for ἀγορα-ζε-ις), 'thou attendest market,' from ἀγορά, 'market;' δειπνίζεις (for δειπνι-ζε-ις), 'thou feastest,' from δεῖπνο-ν, 'feast.' Denominatives in σσ, λλ, correspond to Sanskrit forms in ya, having assimilated y to the preceding consonant, e. g. ἀγγέλλω for ἀγγελ-yω, from ἄγγελο-s; μαλάσσω for μαλακ-yω, from μαλακό-s. This y, instead of being assimilated after ν or ρ, is transferred to the preceding syllable in the form of ι, e. g. μελαίνω for μελαν-yω, from μελαν; καθαίρω for καθαρ-yω, from καθαρό-s. The Denominatives in -εν-ω perhaps arose from an interchange of half-vowels, i. e. w (v) for y, e. g. δουλεύει, 'he is a slave,' from δοῦλος.

In Gothic j (y) represents the formative element, e. g. audag-**j**-a, 'I call happy,' from audaga, 'happy;' gaur-**j**-a, 'I make sad,' from gaura, 'sad;' shaft-**j**-a, 'I create,' from skafti, 'creation.' The stem-vowel of the noun is dropped, except sometimes u, as in Latin and Greek, e. g. thaurs-**j**-a, 'I thirst,' from thaursu, 'dry;' and ufar-skad**v**-**j**-a, 'I overshadow,' from skadu, 'shadow.' In some cases the Gothic has ô for aya, like the Latin â, e. g. fisk-**ô**-s, 'thou fishest,' from fiska, 'fish.' In a few cases n is inserted before the ô, and the stem-vowel preserved in a weakened form, e. g. hôri**n**-**ô**-s, from hôra, e. whore = gr. κόρη, Dor. κώρα, 'girl,' 'wench.'

Some Passive Denominatives in Gothic are formed by -n, which seems to be connected with the Sansk. Passive Participle in -na, continued in the Germanic strong verbs, e. g. e. broke-**n**, etc. Go. Passive Denom. (which may be compared with such Passives as and-bund-**n**-a,

I am unbound) are *full* **n** *a*   I am filled   Act *full* **ȝ** *a*   I fill from fulla   full   Perhaps such forms are the source of the double meanings in such English verbs as   I fill   both intransitive and transitive = I become full and   I make full

Some Denominatives in Sanskrit like some Causatives prefix *p* to *aya* lengthening the stem vowel   e g *artha* **p***aya mi* from artha   thing   *satya* **p***aya mi* from satya   truth

Some Sanskrit Denominatives correspond in meaning to the Desideratives   e g *pati ya mi* from páti   a husband   *putri ya mi* from putra   child   So in Greek ϑανατ ιαω from ϑανατο s   death etc   Such Latin forms as cœnaturio ending in *turio* are verbal derivatives   but equio (equi i o) is a Denominative with a Desiderative meaning from equu s   horse

Denominatives with a Desiderative meaning are formed in Sanskrit also by *sya* (*asya*) e g   *v sha* **sya** *mi* from *vrsha*   bull   *azwa* **sya** *mi* from azwa   stallion *madl w* **asya** *mi* from madhu   honey   Latin forms in *sso* denoting *imitation* correspond to these Sanskrit forms in *sya* the *y* being assimilated to *s* e g *atti i* **sso** from atticu s   *gr c ci* **sso** from græcu s   Latin In choatives in *asco*   esco   also resemble the Sanskrit forms with *asya* e g *flamm* **esco**   I begin to flame from flamma   flame

XI. DERIVATION AND COMPOSITION.

a) DERIVATIVES.

NT or NTA.

251. *The Present Participle Active* is formed by inserting *nt* or *nta* between the verbal stem and the personal ending. The weak forms, however, generally drop the *n* in Sanskrit, while in the Greek and Latin the *n* is preserved throughout. The Gothic has *nda*, where *d* was pronounced probably as an aspirate, for the older mute generally becomes an aspirate in the Gothic language. Examples are s. Gen. *bhára-ta-s*, but Acc. *bhára-nta-m*; gr. Gen. φέρο-ντ-ος, l. *fere-nti-s*, go. *baira-ndi-ns*. In Greek the *ι* is lost, as is seen from the plural M. φέρο-ντ-ες, N. φέρο-ντ-α. The parallel forms in Latin show that the *i* is preserved in that language, e. g. fere-ntê-s, fere-nti-a. The feminine is formed in Sanskrit by *nt* + *î* in the first conjugation, and by *t* + *î* in the second, e. g. *vása-ntî* F., 'inhabiting,' from *vas*; *dáha-ntî* F., 'burning,' from *dah*; *sa-tî'* F., 'being,' from *as*. In Greek *ντιδ* for s. *ntî*, like τριδ for s. *trî*, occurs in θεραπó-ντις, Gen. θεραπó-ντιδ-ος. In these Participles the Masc. form is used also for the Fem. in Latin. In Gothic the feminine has *ndî* for *ndhî*, with the addition of an inorganic *n*, e. g. *visa-ndei* F., 'remaining,' stem *visa-ndein*.

The Participle of the substantive verb has lost the

entire root in b th Greek and Latin Gen *ουτ ος*
l *εντι s* contain only th formative *ουτ εντι* and he
case ending *ος* The Epic and Ionic form *εουτ* indi
cates the previous existence of *εσ ουτ* and the com
pounds *præ seLs ab sens* Gen *præ s* enti s *ab s* enti s
contain the root consonant *s* The feminine of thi
Participle in Greek is somewhat obscured from the fact
that *ν* has become *υ* a usual in such a position and
τ become *σ* through the influence of whilst the *ι* it elf
then disappear *ουσα* ι therefore for *o ντι a*

The same element appears in the s *Auxiliary Futu e*
e Acc S *da sya* **nta** n about to give in the *si*
Fi st Fut i e δω σο ντ a and *First a d Second Ao ist*
e *λυσα ντ a* having loosed *λιπο ντ a* having left
These letters therefore indicate the Participial character
of the word in which they are inserted and have no
reference to any peculiarity of tense for they are applied
to Past Present and Future alike

WANS

251 *a* The reduplicated preterite in Sanskrit forn
an *Active Participle* by inserting *u ins* (vans) *i at* (vat)
or *ush* according to the different weight of the ca e be
tween the stem and the personal ending e g Acc
S *nirud-***wa ns**-*ani* Loc Pl *u ud* **wat** *su* Acc Pl
nirud **ush** *is* from *ud* weep *ush i* forms the
feminine e g *nirud* **ushi** In the Greek perfect
which is also a reduplicated tense this formative is em
ployed in *Μ* and *Ν* *οτ* probably for an earlier *Foτ*
= s *wat* but applied alike to both heavy and light case
e g Acc S *τετυφ οτ a* having struck The feminine
is *υι a* for *υσι a* = s ushi *σ* in Greek being usually
dropped between two vowels e g *τετυφ υι a* In Latin

the word *secv̇ris,* 'axe,' for *sec-**usi**-s,* means 'cut-
ting;' and in Gothic, Nom. Pl. M. *bér-**usj**-os* means
'those who have borne,' i. e. 'parents.' The Latin
adjectives in -**ò**s-*us* may also have been formed by
uáns, to which *ós* corresponds very much as *ór* (ôs)
does to *áns* in the comparative forms, e. g. meli-ôr-;
so *fam-**òs**-us* from fama, though the *s* is not softened
in the latter as it is in the former case.

MANA.

252. *The Participle for the Present, Perfect, and
Future Middle* ends in *mâna* in the first conjugation,
and *âna* in the second. The latter seems to be only a
weakened form of *mâna,* just as the plural of the first
personal pronoun has *a* for *ma* of the singular, and for
the same reason. Hence also, in those parts of the first
conjugation which need a lighter ending than the others,
viz. the tenth class and the reduplicated preterite, the
form *âna* is used. The accent is on the last syllable
of the ending, where, in the indicative, it would be on
the personal ending; otherwise it is on that part of the
stem where the indicative has it. In Greek the perfect
has the accent on the last syllable but one of the ending;
elsewhere the accent follows the general rule. The fol-
lowing are examples:

SANSKRIT.

Present	Perfect	Future.
*dád-**âna**-s*	*tutup-**âná**-s*	*dâ-syá-**mâna**-s*

GREEK

διδό-μενο-s	τετυμ-μένο-s	δω-σό-μενο-s

Again we see that the participial *mâna,* μενο, has
nothing to do originally with the expression of tense,

for like the form previously noticed viz s *nta* gr ντ
1 *nti* it is used for present past and future alike

In Sanskrit the *Passive Participle* differs from the
middle in the same way as the passive voice generally
does from the middle voice i e *ya* is ins rted in place
of the class characteristic e g Mid *dad a ia s* (for
dэda mana s) Pass *di ya riana s* In Zend and
Greek the same form s ives for the pa sive as is used
for the middle e g *ba e* **mane** *m* = gr φ̓ρο μενο ν
ia e **mne** *ii* = gr εχο μενο   In the first of the e
instances the v wel *a* is reduced in Zend as in Greek in
the second it is dropped as we shall find to be the case
in Latin In using this form for both voices the Zend
already anticipates the practice in Greek whilst the
Latin almost exclusively appropriates it to the passive
voice i e in the second person plural

The Latin forms for the second person plural passive
ama **mini** being loved for *ama mini estis* ye are
(being) loved etc are clearly instance of this parti
cipial form in the nominative plural masculine and
were probably at first used with the substantive verb as
another participle is used in the perfect passive i e
ama mini estis like ama ti estis *Alu* **mnu** *s* i also a
passive participle of *alere* whereas a middle or active
meaning is more suited to *Vertu* **mru** *s* and *Volti* **mna**
In the last three instances the vowel *a* is dropped a was
found to be the case in Zend

The element thus appropriated to the formation of
the middle participles also appears in *Substantives* and
Adjectives In Sanskrit *man* in strong and *man* in
weak cases forms *substantives* with an active or passive
meaning e g *ush* **man** M fire (the drier) *ie*
man M weaving loom (weaver) 1 *fe* **min** *a* and
e *wo* **man** may be similarly formed from this root (s *ve*

or *wê*), denoting 'weaver'—'spinster' is still employed
of the unmarried females of the family. (See Sec. **256.**)
*har-i-***mán** M., 'time' (that takes away, *hurries*);
*dhar-i-***mán** M., 'form' (what is borne), as l. *for-***ma**
from *fer*-re, and e. bear-*ing* from bear.* The neuters
are more numerous than the masculincs: *dhâ'-***man** N.,
'house' (what is put or made, so e. build-*ing* = what
is built); *kár-***man** N., 'deed' (as l. fac-**tum** from
facere, and e. deed from do); *rố'-***man** N., 'hair'
(what grows). *Adjectives* in -*man* are rare: *żár-***man**,
'happy.'

In Greek there are *Abstract Substantives* in -μονη,
e. g. φλεγ-μονή, 'inflammation;' χαρ-μονή, 'pleasure.'
Masculine Substantives in -μρν (lengthened in the Nom.
S. to μων) are πνεύ-μων, 'lungs' (breather); δαί-μων,
'god' (shining one). These have the accent on the
stem; but others, with a connecting vowel, have the
accent on the last syllable, both as in Sanskrit, e. g.
ἡγ-ε-μών, 'leader.' The same formative also occurs as
μεν (Nom. μην), e. g. ποι-μήν, 'shepherd' (feeder).
The long quantity of *â* in mána is preserved in some
instances, as in κευθ-μών, Gen. κευθ-μῶν-ος. The
same is the case with μίν in such words as κά-μῖν-ος, ·
'oven' (καίω, κάω); ὑσ-μίνη, 'contest' (a contending),
connected with s. *yudh*, 'contend.' *Neuter Substantives*
have assumed the form -ματ (reduced to μα in the Nom.
S.), e. g. Gen. S. ποιή-ματ-ος, πρᾶ'γ-ματ-ος, ὀ-νό-ματ-ος.
The original ν of this last word appears in νώνυ-μνο-s,
'nameless.'

In Latin, *Masculine Substantives* preserve the long
vowel in *môn* (reduced to *mô* in the Nom. S.) = gr.
μων, s. mân-a, e. g. Gen. S. *ser-***môn***-is*, 'of speaking.'
A further development of this form appears in those

words which end in monia monium e g *ali* **monia**
ali **monium** support from the same root as *ali*
mnu s The *Acute Substantives* have *in* (enlarged t
i e i in Nom S) e se men seed Gen S *se* **min** *i*
no men nine Gen S *no* **min** *is* It is not clear
whether thi formative is in homo Gen S *ho* **min** *i*
e *goo n* (with inserted in bride room which in Angle
Saxon is *b yd guma*) ger Brauti *gam*

In Gothic *Musculine Substantives* with *i an* are *ah*
man spirit (that thinks from *ah ja*) *hliu* **man**
ear (that hears comp on κλ) *blo* **man** flower (that
blows) The formative is curtailed in the n s *blo* **ma** nd
still more in the e *bloo* **m** *n ana* is probably com
pounded of *ma* and *na* each of which is employed sepa
rately in a similar way We have also seen that *ta* and *na*
of the comparative uffix *tama* are employed separately
ma appears in s *i ul* **ma** *n i* old (the sl iner) *yi j*
ma *m* a pair (e *yoke* of oxen etc) *dhu* **má** *s* smol e
(set in motion) *ish* **ma** *s* love (wishing) In Greek
the suffix is accented like the Sanskrit e g στολ μο *s*
equipment ταλ μο *s* wielding Ϛ is inserted in
κλαϑ Ϟ μο *s* weeping μνκη Ϟ μο *s* bellowing In
Latin there are a few examples su h as *an i* **mu** *s*
breath (that blows) *fu* **mu** *s* smoke = s dhu
ma s *po* **mu** *m* apple *fo* **mu** *s* warming = gr
Ϟερ μο *s* warm s *ghar* **ma** *s* *fir* **mu** *s* stron
(bearing from *fer* re) *al* **mu** *s* (for al i mu s) nou
rishing In the Germanic languages the instances are
few and obscure o stem *bag* **ma** tree e *bea* **m**
go st a **ma** (aid ma) poor *bar* **mi** womb (bar
= bear) e *di* **m** = s dhu ma smoke e *dreu*-**m**
from the root *dia* sleep (as in Latin *omniu i* and
som ius are connected together) e *sea* **m** from ew

This formative also appears as *mi,* gr. μι, in s. *dal-***mi-***s,* ' thunderbolt' (splitter); δύνα-μι-*s,* ' power;' φῆ-μι-*s,* ' speech:' θέ-μι-*s,* ' justice.' μη is its feminine form, as in γνώ-μη, ' opinion:' μνή-μη, ' remembrance.' l. *ma,* as in *flam-***ma,** ' flame' (flag-ma): *fâ-***ma,** ' fame,' from the root *bhâ,* ' speak.', Latin nouns in *-mulu-s* (stem *mulo-*) are perhaps for *mumu-s* = s. *mâna,* e. g. *fa-***mulu-***s* (fac-mulu-s, doer, worker), ' servant;' *sti-mulu-s* (stig-), ' stimulant' (pricker).

NDO.

253. In Latin, the *Future Passive Participle in* *-ndus* (stem *-ndo*) Bopp supposes to be of the same origin with *-nti* of the present active. The interchange of *d* and *t* is not without example. We have also seen instances of the same formative being used for different tenses and even for different moods. Though it is undoubtedly rare for all these differences to meet in one and the same instance, yet this does not perhaps form an insuperable difficulty. 1. The formative which appears as *tór* in Latin is either *târ* or *dâr* in Persian: p. *dâ-***dâr** = l. *dâ-***tôr.** 2. The Persian *fer-e-***nde-***h* is both active and present in sense, agreeing with l. (*fer-e-***nti**) *ferens,* ' bearing;' but in form agreeing with l. *fer-e-***ndu-***s.* In the Latin language itself, moreover, there is an instance in which the form *-ndo* agrees in meaning with *-nti*; for *secu-***ndu-***s,* ' second,' means ' the following,' from the same root as *sequ-or.* Besides this, the Latin gerunds in *-ndo* have both a present and an active meaning: *reg-e-***ndo,** ' by ruling.'

It thus becomes not improbable that in the adjectives ending in *-bundus,* also, the same formative is employed in a present and active and even a transitive sense, e. g.

vita bu ndus castra (Liv ?5 13) carefully avoiding the camp   *miia bu ndu s* vanam speciem (Liv 3 38 8) greatly admiring an empty show

TAR

254 *The Participle of the Future Active* is formed in Sanskrit by *ta* (sometimes reduced to *tr*) But it is also used to form *Nomina agentis* e ₀ s *da* **târ** Nom S *data*   ₀oing to give and ₀iver   In the 1st and ?nd persons of all ₀enders it is joined with the substantive verb to form the *Future Tense* but in the 3rd person it is the future tense without the substantive verb   In Greek there is no participle in this form but there are *Nomina agentis* in τηρ τη and τορ e g δο τηρ giver   μαχη τη s fi hter   In Latin *tur o* forms a *Future Participl* and *tor* forms *Nomina agentis* e g *da* **tur** *u s* going to give *da* **tor** giver

The Feminine forms are s *tii* ₀r τριδ and τρια l *th ic* The abbreviation from *tar* to *tr* is caused by the additional weight at the end and the addition of δ in Greek and *c* in Latin is what we have seen take place in other instances   Examples of these feminines are s *da* **tri** the giver   gr λησ ρις (Gen λησ τριδ os) robber   π ιη τρια poetess   Both κε τη s M and ικ τι s F (Gen ικ τιδ os) applicant show a loss of ρ

255 *The names of family relations in tar tr* appear to be *Nomina agentis* so that each was named from what he was occupied in   s *pi* **tar** gi πα τηρ (τηρ enlarged in the Nom from τερ) l *pa* **ter** go *fa* **der** (*d* pronounced as *dh*) a s *fœ* **der** (*d* pronounced as *dh*) e *fa* **ther** (*th* pronounced as *dh*) from *pa* nourish or rule   s *ma* **tar** gr μη τηρ (τηρ

enlarged from τερ in Nom.), 1. *mâ*-**ter**, go. *mô*-**der**,
a. s. *mo*-**der** and *mo*-**dor**, e. *mo*-**ther** (*d* and *th* pro-
nounced *dh*), from *mâ*, which itself means 'measure,'
but in compounds has the meaning of 'produce,' 'bring
forth;' and Bopp has found in the first book of the
Rig-Véda, Hymn 61, 7, the Genitive *mâ*-**túr** as a
masculine, meaning *creatoris*, and in the Old Persian
the Acc. Sing. *fra-mâ*-**târ**-*ann*,='*imperatorem.*'

256. May not *fê-mina* in Latin be a participial form
of the same root? The change of *m* to *f* is certainly
unusual; but they are both labials, and the interchange
would not do much violence to the genius of language.
Besides, we have an instance of a Latin *f* for Greek *μ*
in *formica* compared with *μύρμηξ*. *m* and *w* are
more frequently interchanged: indeed, we have an
instance probably in German **m**it and English **w**ith. In
Bohemian, **m**lh corresponds in meaning, and probably
also in origin, to the ger. **w**olke, e. **w**ell-in. Is it not
therefore possible that **wo**-*man* may be from the same
root as **mo**-*ther*, and similarly formed with the Latin
fê-mina? If so, two words for which hitherto very
unsatisfactory etymologies have been given would be
traced to their origin, and shown to have a very ap-
propriate meaning. (See Sec. **252.**) s. *bhrâ'*-**tar**
(gr. *φρά-τωρ*, member of a brotherhood), 1. *frâ*-**ter**,
go. *brâ*-**der**, a. s. *brô*-**dher** and *bro*-**dher**, e. *bro*-**ther**,
is referred by Bopp to the root *bhar*, 'bear,' denoting
the 'bearer' or 'supporter' of the family. s. *swâs*-**âr**
(*t* lost, but the vowel lengthened as in Latin) (gr.
ἀδελφή), 1. *sor*-**ôr** (*t* lost and *o* lengthened as in Sans.,
and *s* between vowels changed to *r*), go. *svis*-**tar**,
a. s. *swus*-**ter** and *sus*-**ter**, e. *sis*-**ter**, is referred by
Pott and Bopp to the root *su, sû*, 'bear,' 'bring forth.'
s. *duh-i*-**tár**, gr. *θυγ-ά-τηρ* (*γ* for *χ*) (1. filia), go.

lauh **ter** a s *doh* **ter** e *daugh* **ter** seems connected
with the root *duh* and to mean milker 1 e of cows
Bopp gives suckling as the meaning which is ob
jectionable because it is quite as appropriate to son as
daughter whereas this word is used to distinguish one
from he other

257 From the same element (*tar*) arise the neuter
tr a and the feminine *t a* the former occurring in
many words the latter in few   They have an instru
mental meaning e σ e **tra** r   ye (means of
guiding from *ni*) ro **tra** rr ear (means of hear
ing fi m rr) *ga* **tra** *n* limb (means of going
from *ja*) *d in* **tra** tooth (means of biting from
da i)   In Greek the forms of the suffix are τρο
τρα ϑρο ϑρα   The change from a mute to an aspirate
frequently occurs in Greek without any apparent cause
apo τρο *v* plough from *apow* καλυπ τρα covering
from καλ τ τω   αρ ϑρο *v* limb from *apap* ισκω
βα ϑρα step from βα νω   In Latin *ara* a **tru** *m*
  plough from ara re *fulge* **trâ** lightning from
fulge sco   The aspirate which is only occasional in
Zend and Greek is regular in Gothic Anglo Saxon and
English go *mau* **thr** (stem maur *thr a*) e *mur* **ther**
from the root *mar* l *mor* ror go *blos* **tra** sacrifice
which may be inferred from *blos t eis* is from bl t an
  to sacrifice   Without the formative the Anglo Saxon
blot means a sacrifice   In e *laugh* **ter** from laugh
the preceding consonant prevents *t* from being aspirated
and the same cause perhaps operated in *slaugh* **ter**
the *gh* being pronounced at first   The consonant (*ch*)
is pronounced still in both the corresponding words in
German i e la*ch*en schla*ch*ten   e *uea* **ther** is con
nected with the s root *ua* blow   go *hulis* **tr** (stem
hulis *tr a* the *t* not being aspirated in consequence of

the preceding *s*); go. *fô*-**dr**, 'sheath,' a. s. *fô*-**dher**
(stem fö-dra, d = dh), connected with the s. root *pâ*, 'to
contain,' and so equal to s. *pâ'*-**tra**-*m*, 'container,'
'vessel.' e. *ru*-**dder**, ger. *ru*-**der**, is perhaps connected
with gr. ῥεῖ-Ϡρο-*ν*, 'stream,' from ῥέω, though with
a meaning resembling the l. *rê*-mus, *s* 'oar.' The *dd* is
for the aspirate *dh*. go. *hlei*-**thra**, 'tent,' a. s. *hlœ*-**dre**,
e. *la*-**dder** (*d* and *dd* for the aspirate).

With the change of *r* to *l*, which is of frequent
occurrence, this formative becomes in Greek τλο, τλη,
Ϡλο, Ϡλη, e. g. ὄχε-τλο-*ν*, 'carriage;' ἐχέ-τλη, 'handle;'
Ϡύσ-Ϡλο-*ν*, instruments used in the worship of Bacchus;
γενέ-Ϡλη, 'birth.' In Gothic the corresponding form
is *thla*, e. g. *nê*-**thla**, a. s. *nœ*-**dl**, e. *nee*-**dle** (*d* instead
of the aspirate).

TA.

258. *The Participle of the Perfect Passive* is
formed by -*ta*, F. *tâ*. It takes the accent, e. g. *tyak*-**tâ**-*m*,
Acc. S., 'left.' In Greek *Verbal Adjectives* (but not
participles) are similarly formed, e. g. πο-τό-*s*, πο-τή,
πό-τό-*ν*, 'drunk,' with a passive meaning, and the
formative accented as in Sanskrit; but also πό-το-*s*,
'the act of drinking.' In Latin the suffix is employed
in forming the *Participle* as in Sanskrit, e. g. *da*-**tu**-*s*,
da-**ta**, *da*-**tu**-*m*, from da-re. In the above instances
-*ta* is affixed immediately to the root. Sometimes *i* is
inserted : s. *prath*-**i**-**tá**-*s*, 'stretched out,' from *prath*;
gr. σκελ-ε-τό-*s*, 'dried,' from σκέλ-λω; l. *mol*-**i**-**tu**-*s*,
'ground,' from mol-o. The characteristic of the tenth
class (aya) is usually preserved in an abbreviated form,
e. g. s. *pîd*-**i**-**tá**-*s*, 'oppressed;' gr. φιλ-η-τό-*s*, 'beloved,'
l. *am*-**â**-**tu**-*s*.

Adjectives are also formed from substantives by ι *ta*
e g s *phal* ι **ta** s   possessed of fruit   gr αμαξ ι τɔ s
    possessed of waɣɣons   l *patɩ* **i tu** s   fatheɩly   The
Latin neuters ɩn *e tu m* are probably formed from deno
mɩnatɩves of th   second conjugation e ᵤ *aɩboɩ* **e tu** m
from arbor e sco Perf   e vɩ

Abstɩact Nouns aɩe formed from adjectives by the
femɩnɩne *ta* e g s *uhla* **ta**   whiteness   go *tho* Nom
tha nɩυɲ **tha**   newness   a s *dhe* **dh** (alsɕ wrɩtten *d*)
hœl **dh** *leng* **dhe** *gebyɩ* **d**   bɩrth   e *heal* **th** ι *eal* **th**
leng **th**   *dep* **th**   *bɩead* **th**   *heigh* **th** (the last has ɩn
ɩecent tɩmes dropped the *h* and become *heigh* **t**)   The
Latin *ɡuven* **ta** belongs to thɩs class of deɩɩvatɩves
The Sanskrɩt stem *yuvan* ɩs ɩn some cases contractəd to
yun   The same contraction take place ɩn the Latin
comparative *ɡun* ɩor   In Gothic the abstract *ɡun* **da** ɩs
formed fɩom this abbrevɩated stem havɩng *d* as ɩn o
many ɩnstances for *dh*   whɩlst the Englɩsh *you* **th** pre
serves the aspɩrate but loses the final vowel and reduces
the stem to *you* foɩ yu

Abstɩacts ɩn *tat* ι occur ɩn the Vedas wɩth whɩch
may be compaɩed the Greek τητ the Latin *tat tut* æŋɑ
the Gothic *duth* where the *d* ɩs again foɩ an aspɩɩate
e g v *aɩɩshta* **tat** ɩs   ɩnvulnerabɩlɩty fɩom *aɩɩ hta*
gr ηλɩϑ o τη s Gen ηλ ϑ o τητ os   follv fɩom ηλɩϑɩos
l ɡuven tu s Gen *ɡuven* **tut** ɩs   youthfulne s   from
juvenɩs sterɩlɩtas Gen *steɩɩlɩ* **tat** ɩs   barrenness from
sterɩlɩs go *aɡuʜ*-**duth** s   eternɩty   *manag* **duth**-ɩ
  abundance (2 Coɩ vɩɩɩ 2) *mɩl ɩl* **duth** ɩ   gɩeat
ness   Sɩmɩlar words ɩn Latin have *tud ɩn* perhaps
from *tut* by chanɡɩng *t* to *d* and addɩng *ɩn*   Gen S
magnɩ **tudɩn** ɩs   ɣreatness

Abstracts are formed from adjectɩves and substantɩves
by *twa* added ɩmmedɩately to the stem e g s *amrta*

twá-*m*, ' immortality,' from amṛta.   In Gothic the word *thiva*-**dva**, 'serfdom,' occurs (with *d* for the aspirate), from thiva, 'serf.'   In English, -dom resembles the Latin forms in tû-din, from tût, in having added a nasal and changed *t* to *d*.   In words which are not abstracts, the Gothic preserves the formative as *thva*, e. g. *fri-a-***thva**, ' love;' *sal-i-***thva**, ' an inn;' but also in *fi-a-***thva**, ' enmity.'

NA.

259. *A Perfect Passive Participle* of a small number of verbs is formed in Sanskrit by the syllable *ná*, e. g. *bhug-***ná-***s*, 'bent,' from *bhuj*; *bhag-***ná-***s*, 'broken,' from *bhanj*; *bhin-***ná-***s*, 'split,' from *bhid*.   A few Greek *Nouns* (but not participles) are similarly formed by *vó*, *vή*: *σεμ-vó-s* (for *σεβvos*), ' venerated;' *σκη-vή*, ' tent ' (' covered in ').   The meaning shows that these forms are of participial origin.   *τέκ-vo-v*, ' child ' (lit. ' brought forth '), has the accent irregularly thrown back.   In Latin there are *plé-***nu-***s*, 'full ' (lit. 'filled); *reg-***nu-***m*, ' dominion' (lit. ' ruled over ').   Here again the participial meaning is very obvious, although the form does not appear among the participles in any Latin conjugation.   Many words have deviated more or less from the original meaning, e. g. *mag-***nu-***s*, ' great ' (lit. ' grown'); *dig-***nu-***s*, 'worthy' (lit. ' talked of,' or ' pointed to ').   A similar deviation appears in corresponding Greek forms, such as *σεμvós*, ' venerable ' as well as ' venerated.'   The formative, which thus appears to have only a fragmentary character in the older languages, extends in Gothic and Anglo-Saxon throughout the strong conjugations, answering to the strong or ' irregular' verbs in English.   The syllable *na*, Nom. *n*, however, is joined to the root by means of a connecting vowel *a* or *e*,

whereas in the lan uaₒes which we have already noticed
it ı added ımmedıately to the root e g ₒo *bug* **a ŋ** s
as *graf* **e n** e *grav* **e n** s *bhug* **na** s   bent   In
some Gothic *Participles* used as nouns however the
syllable is added ımmedıately to the root e g the
adjectıve *us lul* **na** s   open (lıt ✦ unlocked) and the
Ν substantıve go *bar* **n** (stem bar na) a s *bear* **ŋ**
child (lıt born so the Scotch *bar* **n**)

260 *na* is used like *ta* to form *Possessive Adjec
tives* from substantives   In this application ıt al o takes
the connecting vowel ı e ₒ s *phal,ı* **na** s   possessed
of fruit from phal a *mal* **ı na** s   covered with dirt
from mal a   There are also femınıne forms ın *nı*
denotıngₒ wife of preceded by *a* e g *Indr* **â nı** (ı
changₒes *n* to *n*) wife of Indra gr πεδ ι νο s flat
from πεδ ον σκοτε ι νο s(for σκο εσ ι νο s) dark from
σκο os st σκοτεσ Some adjectives like ξυλινοs λιϑινοs
have the accent thrown back An ınstance of this
occurs ın the Sanskrit word *rng* **ı na** s horned from
zrng a Femınıne forms ın *νη* preceded by *ω* re
semble the Sanskrit femınınes ın *a nı* e g Ακρισι
ω νρ daughter of Ακρισι os Those ın *aινα* are for
a v a e g ϑ *aινα* λυκαινα In Latin many words
have *ı* before *nu* for the connecting vowel as ın Gothic
e g *stagn* **ı nu** from stagn u m pool *bov* **î nu** s
from stem bov (bos ox) After *ı* the vowel ı omıtted
as ın English e g *ebu* **nu** s from ebur ıvory
ve **nu** s from ver spring Even ın Sanskrit ı occurs
e *sarı* **ı na** s yearly from sama year In
Latin also a different vowel vız *a* occurs but ıt is
perhaps of the same orıₒın e g *oppıd* **a nu** s from
oppıd u m town *Rom* **a nu** s from Rom a There
are also femınınes ın *na* and *nıa* preceded by *o* e g
Bell **o na** *matr* **o na** *Vall* **o nıa** In Gothic *na*

Nom. *n*, is preceded by *ei* (= *î*), e.g. *silubr*-**ei-n-***s*, ' of silver;' *fill*-**ei-n-***s*, '*pelliceus*;' *liuhad*-**ei-n-***s*, 'light;' *sunj*-**ei-n-***s*, 'true.' In English the connecting vowel has become *e*, and after *r* is lost, e.g. *wood*-**e-n**, *gold*-**e-n**, *leather*-**n**. The later practice has been to use the substantive, without any formative addition, as an adjective, as in 'a *silver* knife,' 'a *gold* watch.' A trace of the feminine formative is found in the Anglo-Saxon *gyd*en (gyd-e-n), *gyd*-**e-ne**, 'goddess.'

A few *Abstracts* are formed by *na*, F. *nâ*, e.g. s. *yaj*-**ná-***s*, 'honour;' *trsh*-**ná'**, 'thirst;' *swáp*-**na-***s*, ' sleep;' gr. ὕπ-νο-*s*, τέχ-νη; l. *som*-**nu-***s*, *rap*-**i-na.**

TI, NI.

261. *Feminine Abstracts* are formed by *ti* and *ni*, which are probably from ta and na, e.g. s. *yuk*-**ti-***s*, ' union;' *úk*-**ti-***s*, 'speech.' Some have *a* before *ti*, which is a connecting or class vowel. In these words the root is sometimes accented, e. g. *ár*-**a-ti-***s*, 'fear;' *ram*-**a-tí-***s*, 'the god of love;' *vah*-**a-tí-***s*, 'wind.' gr. χῆ-τι-*s*, μῆ-τι-*s*, φά-τι-*s*, ἄμπω-τι-*s*. Elsewhere τ becomes σ, except when preceded by σ, which itself has come from a dental, e. g. πίσ-τι-*s* from πιθ, ζεῦξιs for ζευκ-σι-*s*. -σια has been formed from σι, as -τρια from s. trî. It is seldom added to monosyllabic stems, e. g. ᾆv-σία, δοκιμα-σία, ἱππα-σία. These latter resemble in appearance such words as ἀθανασ-ία from ἀθάνατ-ος, which are not participial but nominal formations. Some in Greek, as in Sanskrit, have a connecting vowel before σι, and the same accentuation, e. g. νέμ-ε-σι-*s*, εὕρ-ε-σι-*s*. In Latin this enlarged form appears in *puer*-**i-tia**, *can*-**i-tiê**-*s*, *serv*-**i-tiu**-*m*, etc. A still greater increase of the formative appears in

ti-on si on Nom *ti* o *si* o e g *coc* **tio**=s *pal* **ti** *s*
junc **tio** = s *yuk* **ti** *s*   Adverbs in *ti m si m* retain
the older and shorter form *ti* e *σ ti ac* **ti** *m cui* **si** *m*
The same formative appeals also in *mes* **si** *s* mowing
tus **si** *s* coughing *mois mens* stem mort ment
probably for *i ioi* -**ti** *me i* **ti** = s *mr* **ti** *s ma* **ti** *s*

In Gothic this syllable assumes the forms *ti di th*,
Nom *t d th* The last is the regular form The second
was perhaps pronounced as *dhi* The first has *t* from
the influence of the preceding consonant Examples
are *ga baui* **th** *s* birth *ga muu* **d** *s* memory
ga shaf **t** *s* cieation *fi a lus* **t** *s* loss (stem gabaur
thi etc) Many English words retain this consonant
e g *bu* **th** *dea* **th** *soo* **th** *migh* **t** *sigh* **t** *frigh* **t**
In some piobably *gh* has been introduced from imitation
of others as in *fri* **gh** **t** fiom *feai*

ni is not so extensively used as *ti* It occurs in those
words whose perfect passive participle has *na* foi *ta*
s *lu* **ni** *s* loosening *gla* **ni** *s* exhaustion *ji r*
ni *s* age (*n* changed to *n* by *i*) gi *σπα νi s*
rarity compared with *σπα-νο s* In Gothic *ana*
bus **ni** (ana biuda) command *taik* **ni** sign show
ing (e *tol* **e n**) *siu* **ni** seeing In these forms *i* is
dropped before *s* of the Nom The weak conjugations
which do not foim the participle in *i* have Abstracts in
ni Nom *n* preceded by *ei* in the first *o* in the second
and *ai* in the third conjugation e g *gol* **ei n** *s* saluta
tion *lath* **o n** *s* invitation *bau* **ai n** *s* edification

Ma culine Substantives applied to agents are formed
by *ti* in Sanskrit e g s *ya* **ti** *s* tanner *sap* **ti** *s*
hoise (lit runner) *pa* **ti** *s* lord (lit nourishei)
gr *πο σι s* l *po* **ti** *s* Is not the English word *foo* **d**
(feeder) formed fiom the same root and in the same
way the regular *th* for *t* having become *d* ? gr *μαν*

τι-s, ' prophet ;' l. *vec-**ti**-s,* ' lever ' (lit. ' carrier'); go. *ga**drauh-**t**-s,* ' soldier ;' *gas-**t**-s,* ' guest ' (lit. ' eater '). In these Gothic words and the English *gues-**t**,* the *t* instead of *th* is fiom the influence of the preceding consonant.

ni also as·well as *ti* is employed to form *Masculine Appellatives,* e. g. s. *vrsh-**ni**-s,* ' ram,' and, applied to a different animal, perhaps l. *ver-**re**-s* for *ver-**ni**-s,* ' boar' (from the same root, s. *vrsh-á,* ' bull'); s. *ag-**ní**-s,* ' fire ' (lit. ' burner '); l. *ig-**ni**-s.* In Latin also *pâ-**ni**-s,* ' bread' (lit. ' feeder '); *fâ-**ni**-s,* ' rope' (lit. ' binder'), etc.

TU, NU.

262. As the interrogative pronoun appears in three foims, viz. *ka, ki, ku,* so the formatives which we are now considering appear as *ta, na; ti, ni;* and *tu, nu.* The Sanskrit *Infinitive* ends in *-tum,* of which *m* is the sign of the accusative case, e. g. *dâ'-**tu-m**,* ' to give ;' *sthâ'-**tu-m**,* ' to stand ;' *át-**tu-m**,* ' to eat,' from *ad.* In compounds *m* is diopped, e.g. *tyak-**tu**-kâmas,* ' desirous to leave.'

The Sanskrit *-twâ* is an instrumental case of *tu,* formed by adding *â,* and is employed like Latin gerunds, e. g. *tan drsh-**twâ'**,* ' after seeing him' (lit. ' with seeing him '); *ity-uk-**twâ'**,* ' after so speaking' (lit. ' with so speaking ').

The Dative case of abstract nouns is sometimes used in the sense of the usual *Infinitive* or accusative case, e. g. *gám-**anâya**,* ' to go ;' *dárż-**anâya**,* ' to show.' The abstiacts in *ana,* which appears in the above examples, are also employed in the Locative Singular in the same sense as the dative, instead of the infinitive, e. g. *anwêsh-**anê**,* ' to seek.' The same form of infinitive

becomes general in the German languages go *an*
gib **an** to give a s *gif* **an** old e *gu* **en** modern
German *geb* **en** A similar formation appears in Greek
The oldest form of the *Present Infinitive* is μɛ αι or
ɛ μɛνα which is a Dative (that is a Locative) form of
an abstract in μ ̣να or ɛ ̣ ɛνα Another form ̣ μɛν or
μɛν which results from dropping αι of μɛναι or ɛ μɛναι
Again there are forms of the infinitive in ναι where the
first syllable of μɛναι is dropped unless ναι be the Dative
(Locative) of να as μɛναι is of μɛνα and thus be of dis
tinct origin This appears the more probable because
forms in ναι occur as early as tho e in μɛναι The
common classical form is ɛιν for ɛɛν and this from ɛ μ ɛν
e g ɛ π ɛ μɛναι ɛ π ɛ μɛν ɛ π ɛιν βη ναι

263 An Aorist form in the Vedas with the meaning
of the *Infinitive* ends in *se* (=sai) e g *me* **she** (*s*
changed to *sh* by the preceding vowel) to throw
This strikingly resembles the Greek First Aorist Infini
tive in σαι e g λυ σαι to loose τυψαι (τυπ σαι)
to strike δ ιξαι (δɛι σαι) to show Both seem
identical with the Latin *se* after consonants ̣e after
vowels e g *es* **se** to be *dic e* **re** to say *s* assim
lates a preceding *t* in *pos* **se** from pot se and is itself
assimilated to a preced ng *l* and ̣ in *vel* **le** and *fe̦* **re**
unless these are for vel e ̣e (gr β λ o μαι) and fe̦ e re
(φ ρ o μα) in which case the only assimilation is that
of ̣ to *l* in *vel̩e* The *Perfect Infinitive* in Latin in
archaic forms is also *se* e g *consum se admis se* (for
admit se from *adm ̣t to*) As the Latin perfect gene
rally corresponds in origin to the Greek aorist these
forms agree exactly with the aorists φην αι (for φην σαι
the σ being dropped after nasals) and τυψαι (for τυπ
σαι) The more common Latin forms in *sse* are of
later origin

The *Passive Infinitive* in Latin was probably at first -*seæ*, changed by the laws of euphony to -*rere*, and afterwards to -*ri-re* and -*ri-er*. Hence we meet with the older forms *amá-rier, moné-rier, dici-er, molli-rier*. The last syllable -*er* is wanting in the ordinary forms used in the classical works, and in conjugating the Latin verb: therefore *amá-ri, moné-ri, dici, molli-ri* are regarded as Passive Infinitives, though in fact they exactly agree in form with the Active Inf. *amá-re,* etc., with the exception that the final -*e* was changed to -*i*, for euphonic reasons, when followed by *re* (*er*). There is also the further difference in the third conjugation, that -*re* of the Active *dice-re* is dropped. The so-called Passive Infinitives, therefore, are not Passive in *form*. The older termination *er* for *re*, and that for *se*, is the same reflexive pronoun as is employed in the form of *r* in the rest of the passive conjugation.

This *Véda Infinitive* in -*sé* occurs in sentences where its usage is exactly parallel with that of the *Dative of Abstract Substantives* in -*á*, and thus illustrates the meaning and force of the Infinitive, e. g. *vé'mi twá pûshann rnj-ásé, vé'mi stó't-avé,* 'I come to glorify thee, Pushann; I come for praising (thee).' rnj-ásé Inf., and stó't-avé Dat. S.

There is also a *Véda Infinitive* in the form of the accusative singular following the verb *zak*, 'to be able.' The English Infinitive without 'to,' after 'can,' resembles this construction, though the Infinitive has not the form of a case, e. g. *apalupan* (for apalupam, Acc. of apalupa) *ná zaknuvan,* 'they could not (to) destroy.'

This verb *zak* is even used in the Passive form itself, *yadi zak-ya-té,* 'if it can,' lit. 'if it (is) can(ned).' A double Passive occurs even in Latin, e. g. *ut comprimi*

nequitu   how incapable he is of being restrained (Plaut
Rud iv 4 20)   *forma in tenebris nosci non quita
est;* the form could not be distinguished in the dark
(Ter *He* iv 1 58)   The Future Infinitive Passive in
Latin has likewise the auxiliary in the passive form
amatum in

264 In later languages the expression of the *Pas
sive* seems to have been felt to be difficult   The me
thods resorted to by Ulfilas in his Gothic translation
of the Scripture   are various and singular   but in none
of them is there a really passive form of the finite verb
The Passive Perfect Participle in *th* (originally *ta*) is
employed but not as a past tense   The relations of
time are expressed in the substantive verb connected
with the participle e g Mark xiv 5 *maht vesi   fra-
bugjan*   was able to be sold   The word able how
ever must be supposed to be Passive as if *mayed* could
be formed from *may* like *made* from *mal e* and thus
the *maht vesi* might not only express the past tense of
ηδυυατο but also the passive voice of πραθηναι   for the
Gothic word by which this latter is rendered is active
frabugjan   to sell   instead of   to be sold   *shuld*
(th s) is also used in a similar way to express the pas
sive of the accompanying infinitive   e g Luke ix 44
μελλει παραδιδοσθα   is going to be given up   is ren
dered *shulds ist abgiban*   is necessitated (Pass) to
give up (Act) for   to be given up   The Active In
finitive is also used for the passive when no passive
form accompanies it   and the only method of indicating
the voice is in the agent being expressed in the dative
or instrumental case   e g προς το θεαθηναι αυτοις   in
order to be seen by them   is in Gothic   in order to see
by them   *du saihian im*   This use of the active for
the passive infinitive   without the least indication of the

difference, occurs extensively in the modern German language, e. g. *es ist zu sehen*, for ' it is to be seen.' In English it is rare, e. g. ' it is yet to do' for ' it is yet to be done.'

The preposition *to*, which is generally put before the infinitive in the Germanic languages, properly governs the dative case. The Gothic, however, from the habit of dropping the final vowel, has lost the case-sign. The old Saxon and Anglo-Saxon have *o* (for *ai*) as a reduced form of the dative ending *âya*. The *n* is also doubled without any apparent reason. Possibly it was intended to regulate the pronunciation of the preceding vowel, as in English the consonant is doubled after a short vowel when a suffix is added beginning with a vowel, e. g. *hitt-ing* for *hit-ing*, merely to prevent the first *i* from being pronounced long in the participle. A similar reason may have caused the forms o. s. and a. s. *farann-e* for *faran-e*.

As the Dative case, among other things, also expresses the goal at which an action aims, so the Germanic Infinitive, consisting of the preposition *to* with a Dative case, was at first confined to this meaning, and afterwards extended by analogy to others. Thus, in Gothic, ' a sower went out *to sow*' (*du saian*), i. e. for the purpose of sowing; ' he that hath ears *to hear*' (*du hausjan*), i. e. for the purpose of hearing. The following may serve as an illustration of the further use of this form: 2 Cor. ix. 1, *ufjô mis ist du mêljan izvis*, 'superfluous for me it is to write to you' (τὸ γράφειν, *du* mêljan, ' to write,' i. e. writing).

This mere action without any reference to aim or purpose is often expressed by the *Infinitive* which depends upon another verb, e. g. 'he began to go,' i. e. he began the act of going. So, in Lu. iv. 10, ' will enjoin

upon his angels (the act) *of taking care of thee*   go
du gafastan thik του οιαφυλαξαι σε   ◦

In Gothic this *Infinitive* is also used without the
preposition sometimes in rendering a Greek infinitive
e. g *galeithan* απ λϑειν   to go out   and sometimes
in rendering a Greek noun e g Luke iv 6 varth
afslauthnan allans εγε ετο ϑαμβος επι ταντας   there
came *ama ement* upon all

Verbs denoting an act of sensation often take two
object   the first expressed by an objective case and the
second by an infinitive without the prepo ition   The
infinitive in this case denotes only the act as in the
dependent infinitive noticed above e g̃ I saw him go
i e going where *him* and (the act of) *going* are two
objects seen and combined in one idea   The Greek has
the participial form where the Gothic has this infinitive
John vi 62 εαν ουν ϑεωρητε τον υιον του ανϑρωπου
αναβα νοντα *jabai nu gasaihith sunu mans ussteigan*
(αναβαινοντα *ussteigan* ascend up) Where the govern
ing verb does not denote an act of sensation the nature
of the governed infinitive is sometimes not quite so
obvious   Yet in such cases as Matt viii 18 *haihait
galeithan siponjons*   he commanded go the disciples
i e the disciples to go it is clear that both the act of
going and the disciples were objects of command So al o
Lu xix 14 *ni vileim thana thiudanon*   we refuse him
to rule *him* and *ruling* are alike the objects of refusal

265 In Greek we meet with the forms ε μεναι
ε μ ν (ε εν) ειν (Ion ην)   ε ν (Dor) and ναι   It is
not difficult to trace all the others to the first ε μεναι
which appear in the oldest documents   for ε μεν
merely drops the final diphthong (ε ε) ειν further
drops μ and regularly contracts the two vowels to ει
the Ionic shows another and less usual contraction to η

the Doric drops ε fiom ε-εν. Again, the original form after vowels is -μεναι, which, by dropping με, becomes ναι. There is nothing in these changes very different from the usual course of abbreviation to which language is subject. The loss of αι all at once from μεναι is the least likely; but in Homer, where the full form occurs, very often the diphthong is elided in ἔμμεν for ἔμμεναι, and the elision of it, however rarely it occurs, indicates the possibility of its being dispensed with altogether. The derivation of -μεν from μεναι is also less improbable than that there should have been different sources of the infinitive present of εἰμί in the existing forms of ἔμμεναι, ἔμμεν.

If μεναι be referred to the Sanskrit -manê, dative singular of -man, it would make the Greek form αι fuller than the Sanskrit, which is very unlikely to be the case; but if it be referred to -mânâya, dative singular of -mâna, it would make the Greek a + ι for â + y, with the loss of the final a, a more regular representative of the Sanskrit form. The first part μεν answers to s. mân, as the participles in -μενο-s to the s. part. mâna-s. Like other participial terminations, it was probably employed to form abstract nouns, and hence the Greek infinitive is a case of an abstract noun like other infinitives.

Bopp refers to the Middle forms, s. mê, sê, and gr. μαι, σαι, as showing that the s. ê may be represented in Greek by αι; but in this case there was a consonant between the vowels, which will account for the otherwise unusual preservation of the original vowels a ι in Greek. (Sec. **212**, p. 183.)

266. The *Passive Infinitive* has the form σθαι, which Bopp explains as consisting of the reflexive pronoun σ (for σέ, ἔ) and the dative singular of an

abstract noun formed from the same root as the auxiliary verb signifying do or put and appearing as $\vartheta\eta$ in the weak (or first) aorist and future passive $\vartheta\eta$ ν $\vartheta\eta$ σομαι That σ represents the reflexive pronoun as expressive of the passive voice seems probable from the analogy of the Latin language where the same pronoun serves the same purpose There is this difference however that in Greek it is inserted between the root and the ι_n of the infinitive whilst in Latin it is affixed to the infinitive as it i to the finite forms of the active e σ a nat ur ar ar i er (for amar e er) That $\vartheta a\iota$ i the dative singular of an abstract in *tha* as the weak aorist active σαι is of an abstract in *sa* from the subst verb needs perhaps some further confirmation

YA

267 A considerable number of words are formed by *ya* and the secondary suffixes *tav ya* and *an i ya* *ya* is of the same form as the relative pronoun in *tav ya* the first part appears to be a gunaed form of *tu* which is employed for the Sanskrit infinitive the first part of *an i ya* is used as a suffix in forming abstracts and *i* may be only a vocalised and lengthened form of *y* phonetically developed from the syllable *ya*

ya occurs in *Gerunds* and is probably an instrumental case like *twa* with which it corresponds in meaning The Vedas have an instrumental in *ya* for *ya + a* and the Sanskrit gerund *ya* being later is also perhaps a shortened form for the same The accent is upon the root e g *ni viz* **ya** having entered This suffix being used with compound verbs may account for the quantity of the vowel being shortened whilst *twa* preserves its long vowel because it is used with simple

verbs.' If the root ends in a short vowel, *t* is inserted between it and this suffix, probably from a similar phonetic cause to that which doubles the consonant after a short vowel in English when a suffix beginning with a vowel is added, e. g. from *cut*, *cutt-ing*. Hence, in Sanskrit, *aṇu-zrú-***tya**, 'having heard,' from *zru*.

In Greek the equivalent is *ιο*, in Latin *iu*. They are not used in forming gerunds, but *Abstract Nouns*, e. g. *ἐρείπ-ιο-ν*, *gaud-***iu***-m*. The instances in Greek are few; the Latin ones, like the Sanskrit, are usually compounds, e. g. *di-luv-***iu***-m*, *dis-sid-***iu***-m*.

Neuter Abstracts are formed in Sanskrit from nominal stems. The stem-vowel, except *u*, is dropped, e. g. *mâ'dhur-***ya***-m*, 'sweetness,' from *mudhurá-s*, 'sweet.' Similar forms occur in Gothic, e.g. *unvit-***ja**, 'ignorance,' from *unvit(a)-s*, 'ignorant;' *diub-***ja**, 'theft,' from *diubs* (for *diuba-s*), 'thief.' So also in Latin *mendac-***iu***-m*, 'falsehood,' from *mendax* (mendac-s), 'false;' *jêjûn-***iu***-m*, 'fast,' from *jêjûnu-s*, 'fasting.' There are a few in Greek, e. g. *μονομάχ-ιο-ν*, 'single fight,' from *μονομάχο-s*, 'fighting singly,' also such words as *κουρεῖον* (*κουρέϝ-ιο-ν*), 'shearling,' from *κουρεύ-s*, 'shearer.'

The feminine *-yá'*, with the accent, forms *Primary Abstracts*, e. g. *vid-***yâ'**, 'knowledge.' In Greek *ίᾱ*, e. g. *πεν-ίᾱ*, 'poverty,' from *πενέ-ω*; *ἀριστε-ία* (*ἀριστεϝ-ια*), 'a noble act,' from *ἀριστεύ-ω* (*ἀριστεϝ-ω*), 'I am a noble.' In Latin *ia*, *iê*: *ined-***ia**, 'hunger,' from *in + ed-ere*, 'not to eat;' *diluv-***iê***-s*, 'deluge,' from *dilu-ere* (diluv-ere). In Gothic *jô* (Nom. *ja*, *i*), e. g. *vrak-***ja**, 'persecution,' Gen. *vrak-***jô***-s*, from s. *vraj*; *band-***i**, 'bond,' from *bind-an*.

Both Latin and Gothic in some cases add *n*, e. g. 1. *con-tag-iô*, Gen. *con-tag-***iôn***-is*, 'touch,' from

con tangeɪe go *ɩaɪh ɟo* Gen *vaɪh* **jon** *s* conte t
fɪom *vaɪha*

Both Greek and Latin foɪm *Denomɪnatɪve Absti act*
in a simɪlar wav e g σοφ ɩα wisdom l *pɪœsent* **ɩa**
pɪesence from *pɪœsens* (*pɪœsent s*) *baɪbaɪ* **ɪe** *s*
barbarɪtɣ froᵐm *baɪbaɪv s* *uɴ ɪo* Gen *un* **ɪon** *ɪ*
unɪon fɪom *unu s*

In Sanskɪɪt *Futuɪ e Paɪ tɪcɪples Passɪve* aɪe foɪmed
by *ya* and *Substantɪves* resemblɪng them ɪn meanɪnᵍ
e ᵤ Part *guɪ* **ya** *s* to be concealed Subst *guɪ* **va** *n*
secret (a thɪng to be concealed) Part *bhoɟ* **ya** *s* to
be eaten Subst *bhoɟ* **ya** *m* food (a thɪng to be
eaten) Gothɪc *Adɟectɪves* ɪn *ɟa* correspond to the e
partɪcɪples ɪn form and meanɪnᵍ e ᵤ *anda nem* **ja**
agreeable (t be ɪeceɪved) *unqɪeth* **ja** ɪnex
pressɪble (not to be utteɪed) Sɪmɪlar *Adɟectɪves*
occur ɪn Greek wɪth δ ɪnserted after a short vowel e g
φϑɪ δ ɪo s perɪshable αμφα δ ɪo s publɪc (to be
seen) εκτα δ ɪo s broad (to be spread out) Con
sonant stems also occur e g ταλλα (for παλ ɪα=s
ya Fem) ball (to be hurled) In Latin *exɪm* **ɪu** *s*
emɪnent (to be selected)

Denomɪnatɪve Adɟectɪves are also formed by *ya*
e g s *dɪv* **ya** *s* heavenly from *dɪv* *hrd* **ya** *s*
hearty affectɪonate fɪom *hɪ l z yaɪ* **ya** yeaɪlɣ
from *yaɪ e* gr πατρ ɪo s paternal from πατηρ
τελε ɪo s perfect (for τελεσ ɪ s) from τ λos
ovρav ɪo s heavenly fɪom *o ρavos* In Latin theɣ
are less numerous than ɪn the above languages But
there are *Appellatɪves* as well as adɟectɪves e g
patɪ **ɪu** *s* paternɪl from *pater* *Maɪ* **ɪu** *s* fɪom
Maɪ s *Ɲon* **ɪa** Fem from *nonu s*

It seems more nɪtural to refeɪ the *names of coun*

tries to adjectives of this kind than to substantives,
e. g. *Gallia, Germania,* to *Gall-iu-s, German-iu-s,* from
Gallu-s, Germanu-s, i. e. *Gallia (terra),* etc., 'the
land of the Gauls,' etc. Thus in more recent times
we have Eng-land, Deutsch-land, named from the people
as a whole, and not from an individual.

The corresponding *Adjectives* and *Appellatives* in the
Gothic language end in Masc. *-ja,* Fem. *-jô,* whilst some
add *n* and form *-jan,* e. g. *alth*-**ja,** ' old,' from *althi*;
leik-**ja,** ' physician' (leech), from *leik*; *fisk*-**jan,** ' fisher,'
from *fisks* (stem *fiska*).

268. *tav-ya* forms *Future Passive Participles.* It
takes the accent, and is preceded by guna, e. g. s. *yók*-
távya-*s,* ' to be joined,' from *yuj*; *dâ*-**távya-***s,* ' to be
given,' from *dâ.* gr. *-τέο-s,* e. g. δο-τέο-s, ' to be given,'
for δο-τεϝο-s from δο-τεϝιο-s; l. *-tivu-s,* e. g. *da*-**tivu-***s,*
where *tivu* is for *tiviu.* The meaning is somewhat
altered, and even in *cap*-**tivu-***s,* though the passive is
expressed, it is referred to the present, not the future,
time, i. e. ' taken,' not ' to be taken.'

269. *ani-ya* also forms *Future Passive Parti-*
ciples : s. *yój*-**aní'ya-***s,* ' to be joined,' from *yuj.* z. *-nya*
(the î in Sanskrit being perhaps a later development),
e. g. *yaź*-**nya,** ' to be adored.' The Gothic has the
same form *-nja,* e. g. *ana-siu*-**nja,** ' visible' (to be
seen).

270. s. *êya* seems to be from *ê + ya,* of which the
first part probably is only introduced for euphonic
reasons. It generally retains the accent on the one or
the other syllable. It is used similarly with the simple
form *ya,* e. g. s. *dâs*-**êyá-***s,* ' a slave's son,' from dâsá,
' slave;' *gáir*-**êyá-***m,* ' mountain produce,' from girí,
' mountain.' gr. *-ειο,* and abbreviated to *-εο* : λεόντ-ειο-s

x

and λεοντ εο s of a lion   l *eju* and abbreviated to
eu *Pomp* **eju** s *cinei* **eu** s   ashy

271 The stems of some *Nouns* though not many
consist of the *root only*   In Sanskrit there are feminine
Abstracts of this sort e g s *bhi*   fear   *mud* joy
In Greek there are *Appellatives* so formed e g οπ (ψ)
eye   φλογ (φλοξ)   flame   but στυγ (στυξ)   hatred,
and *a κ* (*a ξ*)   impetuous motion   spring (tide)
are *Abstracts*   Latin *Appellatives* e g *duc* (dux)
leader

Bare roots are also used at the end of *Compounds*
and generally in the sense of the present participle
governing the preceding noun e g s *dharma vid*
knowing duty   *du kha han*   destroying pain   gr
ψευσι σ υγ (ψευσιστυξ)   hating lies   κορυϑ αικ (κορυϑ
αιξ)   shaking the helm   l *ju dic* (judex)   uttering
law   *au cup* (auceps)   catching birds

The vowel *a* is sometimes lengthened e g s *vach*
speech   (r vach)   *pari vra j*   wandering about
beggar (r vraj)   gr ωπ (ωψ)   eye (r οπ)   l reg
(rex)   king   (r reg)

After a short root vowel *t* is added as in some other
cases e g s *pari ri u* **t**   flowing round   l *com i* **t**
(comes)   attendant (r *i*)

A

272 The suffix *a* which is the same in form at
least as the demonstrative pronoun is employed both
as a primary and as a secondary suffix to form *Mascu
line Abstracts*   In Gothic these abstracts have acquired
the neuter gender as is seen from their not having *s*
in the Nom Sing e g *anda beit* (stem *anda beit***a**)
blame   *af let*   forgiveness (letting off')   One neuter

occurs in Sanskrit, i. e. *bhay-á-m*, 'fear,' from *bhî*, but M, *jay-á-s*, ' victory,' from *ji*.

The same suffix, with the accent, -*á*, also forms *Adjectives* resembling the present participle in meaning, as well as *Appellatives* which generally were at first *Nomina agentis*, e. g. *tras-á-s*, ' trembling ;' *mûsh-á-s*, 'mouse' (lit. ' stealer'). In Greek -ό, e. g. *φάν-ό-s*, ' shining ;' *τροχ-ό-s*, ' runner.' The meaning is sometimes passive, and the accent sometimes on the root both in Sanskrit and Greek. In the latter language δ is sometimes added, as we have seen *t* to be in many cases after a short vowel, e. g. δορκ-ά-s (stem δορκ-ά-δ-),'gazelle'('gazer'); τυπ-ά-s (st. τυπ-ά-δ-), ' hammer' (' striker').

These forms occur especially at the end of compounds, e. g. s. *arin-dam-á-s* (' taming'), ' tamer of foes ;' gr. *ἱππό-δαμ-o-s*, ' tamer of horses ;' l. *nau-frag-u-s*, ' shipwreck.' The e. *wreck* as well as *break* is of the same root as the Latin *frag* in *frang-ere*, ' break.'

Some words of this kind in Latin have the feminine form -*a* = s. *â* applied to both masculine and feminine genders, as in *parri-cîd-a*, ' parricide,' from *cœd-ere*, and sometimes restricted to the Masc. as in *cæli-col-a*, ' dwelling in heaven,' from *col-ere*. Even *scrib-a*, ' writer,' ' secretary,' though not a compound, has the feminine form for the masculine. Some other *Masculine Appellatives* ending in -*a* are really Greek words which have dropped the final *s* of the Nom. Sing., like *poe-ta*, gr. ποιη-τή-s.

On the other hand, these compounds in Greek have the masculine form for both masculine and feminine.

The Gothic has a few instances of all these formations. Masculine, both compound and simple, e. g. *daura-vard-a*, 'door-keeper' (e. *ward*); *thiv-a* (Nom. *thiu-s*), ' lad,'meaning the ' strong,' ' muscular,' from *thiu*, e. *thew*,

s *tu* grow become strong but *thiva* is in English degraded to thief Neut *ga thiask* **a** threshing floor Fem *daun a vaid* **o** (Nom *vaid a*) porteress Adjectives *laus* **a** loose *af let* **a** let off

A passive meaning belongs to these forms when compounded with the prefixes *su* easy and *dus* hard in Sanskrit and with the corresponding ones εν δυς in Greek e g s *su lai* **a** *s* easy to be done *dush lai* **a** *s* haid to be done This explanation of these forms which I have given in deference to Bopp s authority seems to me somewhat arbitrary and unnecessary The meaning is perhaps no more passive than in such Germanic forms as ger *leicht u thun* e *easy to do* which some giammarians also represent as active forms used in a passive sense whereas the true explanation is by an ellipsis *easy* (for any one) *to do* so also *hard* (for any one) *to do* The above Sanskrit and Greek forms may also be taken in an active sense As these derivatives have originally the sense of the present participle active e g s *bhay* **a** *m* fear (lit fearing) so when compounded with *su* or *dus* they retain a similar meaning e g *dush lar* **a** *s* = hard doing not hard being done gr εν φορ *o* *s* = easy bearing not easy being borne The ease or difficulty in each case refers to the agent not to the thing done or borne

As a secondary suffix *a* generally retains the accent and is preceded by vriddhi It has a feminine in *i* and forms masculine substantives denoting *descent* as well as neuters denoting *fruit* etc e g *manav* **a** *s* man (descendant of Manu) *azwatth* **a** *m* fruit of the azwattha tree *samudr* **a** *m* sea salt (sea produce) from *samudra* In Greek the feminine patronymics in *i* have the usual δ affixed e g Ιναχ *ι* *s* Gen Ιναχ *ιδ* *os* daughter of Inachus μηλ *o* *v* apple

from μηλι-δ-; ὠ(F)-ό-ν, 'egg.' In Latin *pôm*-**u**-*m*, 'apple,' from *pomu-s*; *óv*-**u**-*m*, 'egg' ('bird's produce'), from avi-s.

Neuter Abstracts are also thus formed, s. *yáuvan*-**á**-*m*, 'youth,' from yúvan; and *Neuter Collectives*, s. *kâpót*-**á**-*m*, 'a flock of pigeons,' from kapô'ta.

Adjectives and *Appellatives* occur, e. g. s. *áyas*-**á** M. N., *á'yas*-î F., 'of iron,' from áyas; l. *decór*-**u**-*s*, 'proper,' from decus.

The feminine *â'* with the accent is also used to form *Abstracts* : s. *bhid*-**â'**, 'a splitting;' gr. -η, φυγ-ή, 'flight;' l. -*a*, *fug*-**a**, idem; go. -*ô*, *bid*-**ô**, 'begging.'

I.

273. The suffix *i* is like the demonstrative pronoun *i*, but it may be only a weakened form of the suffix *a* noticed above, just as, in the Latin words *imbelli-s*, *multi-formi-s*, the *i* is for *u* (older *o*) in *bellu-m*, *multu-s*, which answers to the Sanskrit *a*.

This *i*, with the accent on the root, forms *Feminine Abstracts*, e.g. s. *sách*-**i**-*s*, 'friendship' (lit. 'following,' l. *sequ-or*); z. *dâh*-**i**-*s*, 'creation;' gr. μῆν-ι-*s*, 'wrath;' δ or τ is sometimes added, as in other cases: ἔλπ-ι-*s* (ἐλπ-ιδ-), 'hope;' χάρ-ι-*s* (χαρ-ιτ-), 'grace;' l. perhaps such as *cæd-es* (cæd-*i*-), 'cutting;' go. *vunn*-**i**, 'suffering' (wound).

It is also used, with the accent placed variously, in forming *Masculine Nomina agentis* and *Appellatives*, e. g. *chhíd*-**i**-*s*, 'splitter;' *áh*-**i**-*s*, 'serpent' (mover, creeper); z. *az*-**i**-*s*, 'serpent;' gr. τρόχ-ι-*s*, 'runner;' ἔχ-ι-*s*, 'serpent;' sometimes δ again is added: κοπ-ί-*s* (κοπ-ιδ-), 'knife;' l. *angu*-**i**-*s*, 'serpent;' go. *junga-laud*-**i**, 'young man' (e. *lad*).

U

274 The suffix *u* without the accent is employed
to form *Adjectives* resembling in meaning the present
participle of desiderative verbs and governing the
accusative case   With the accent it forms *Adjectives*
without the desiderative meaning   e g   s *didṛksh* **u**
pitarau desirous of seeing parents   *tan* **u**   thin
(outstretched) *swad* **u** gr ηδ υ l *sua* **v** *ιs*, sweet
go *thaurs* **u** *s*   dry   In l *i* is added to the suffix
and suavis is for suad u i s

Appellatives are also formed with an accented or
unaccented *u*   *bhid* **u**   thunderbolt (splitter) gr
νεκ υ corpse (perishing) l *curr* **u** *s*   carriage
(runner) go *fot* **u**   foot (goer)

AN

275 *Appellatives* are formed by *an* (an) without
accent e g   s *sneh* **an**   friend (lover) *raj* **an,**
king (ruler)   In Greek this affix assumes several
forms αν εν ον ην ων e g ταλ αν patient   αρρ ςν
male   σταγ ον drop   πενϑ ην enquirer   σκηπ ων
staff   l *on* *in* e σ *edo* (Gen *ed* **on** *is*)   eater
pecten (Gen *pect* **in** *is*)   comb   go *han* **an** cock
(crower l *can* *ere*)   A few *neuters* occur in this form
go *ga deil* **an**   sharer

This suffix weakened to *in* and accented is employed
at the end of compounds with the root strengthened in
s   e g *rta vad* **in** also in the simple *kam* **in** lover
l *pect* **in** go *stau* **in** *s* Gen of stau a judge   It is
also employed as a secondary suffix e g *dhan* **ín**
rich from dhana

In Greek ων is applied to *place* and *time* e g

ἱππ-ών, 'stable' (place for horses); ἀνδρ-ών, 'men's room;' ἐλαφηβολι-ών, 'month of El.' (stag-hunting time).

ANA.

276. Masculine and neuter *Appellatives*, with the root accented, are formed by s. *ana*, gr. *avo*, go. *ana*, e. g. s. *náy*-**ana**-*m*, 'eye' (leader); Fem. *yâch*-**anâ'**, 'begging ?' gr. δρέπ-ανο-ν, 'sickle' (cutter); go. *thiu-dans* (st. *thiud*-**ana**-), 'king;' Fem. *ga-mait*-**anô**-*n*, 'cutting,' 'reaping.' In English we have *wagg*-**on**, with *g* doubled perhaps only in consequence of the shortened pronunciation of the first vowel. The same suffix accented also forms *Adjectives* in Sanskrit and Greek, e. g. s. *źobh*-**aná**, 'beautiful' (shining); gr. σκεπ-ανό-*s*, 'covering.'

AS.

277. The suffix -*as*, with the root vowel gunaed and accented, forms *Neuter Abstracts*, e. g. *máh*-**as**, 'greatness ;' *táv*-**as**, 'strength,' from *tu*. gr. both primary, -*ες* (Nom. -*os*), φλέγ-*ος*, 'flame' (burning), and secondary, γλεῦκ-*ος*, 'sweet wine' (sweetness, from γλυκύς). l. -*us*, Gen. -*er-is*; -*us*, Gen. -*or-is*; -*ur*, Gen. -*or-is*; -*ur*, Gen. -*ur-is*: *rôb*-**ur**, 'strength' (s. root *rudh*); *fœd*-**us**, 'treaty' (for *foid-us* from *fid*). This suffix has in many cases become -*ôr*, and of the masculine gender: *sap*-**ôr**, 'taste' (Gen. *sap-ôr-is*). The long syllable is also employed in Latin to form secondary derivatives, e. g. *amar*-**ôr**, 'bitterness,' from *amaru-s*. go. *is-a* (Nom. is): *hat*-**is**, 'hatred;' *ag*-**is**, 'fright.' In English the *s* is softened to *r*: *hat*-**re**-*d*, *ôg*-**re** (*re* for go. *sa*). Both primary and secondary forms are used with *l* added,

e g *svum* **s l** pool (swimming place) *svai* **is l** blackness   This suffix also occurs with the addition of *su* perhaps for *tu* e g *fraujin* **as su** *s* dominion *thiudin* **as su** *s⃰* government   The weak verbal stem from which these abstracts are formed ends in *n* which has come to be regarded as part of the formative suffix Hence the English *ness* and German *niss* e g old ger *dhi* **nissa** a s *dhie* **ness** trinity (three ness) e *mild* **ness** etc

The same suffix also forms *Neuter Appellatives* active or passive e ₒ s *ziav* **as** ear (hearer from *ziu*) *man* **as** mind (thinker) *pay* **as** water (what is drunk) gr *μεν ος* mind (what thinks) *τέκ ος* child (what is brought forth) l *ol* **us** (Gen *ol* **er** *is*) vegetable   *t* is sometimes inserted e g s *s ǫ* **t as** stream gr *σκυ τ ος* skin (covering) In other cases *n* is similarly inserted e g s *ar* **n as** water (mover from *r*) gr *δα ν ος* gift   loan l *pig* **n us** pledge

A few *Adjectives* are thus formed with the meaning of a present participle and governing an accusative case e g s *nr man* **as** thinking of men   The same form occurs at the end of Greek compounds e g *οξυ δερκ ες* seeing quickly   keen sighted

LA RA

278 These two forms *la ra* appear to be of identical origin   The final vowel sometimes changes to *i* or *u* and in some instances *a i u o* or *e* is inserted between the stem and the suffix   These modifications whilst they give great variety to the later forms of language do not affect the meaning of the derivatives e g s *la -ra* *zuk* **la** white (glittering) *dip* **ra,**

'shining.' gr. -λο, -ρο: βη-λό-s, 'threshold;' νεκ-ρό-s, 'corpse' (perishing). l. Fem. -la, sel-**la** (sed-la), 'seat;' -rṵ (older ro), ca-**ru**-s, 'dear' (s. *ham*, 'love'). go. -la, -ra: sṵt-**la** (Nom. sitls), 'nest' (sitting-place); *lig*-**ra** (Nom. *ligrs*), 'lair' (place to lie in). The formatives *l* and *r* remain in the English words *sett-le*, denoting a place to 'sit' or 'set' upon; *lai-*r and *lay-*er; *sadd-*le, *padd-*le, an instrument for the foot, formed from the old root l. ꝑês, *ped-is*.

-ri appears in s. *angh-***ri**-s, 'foot' (goer); gr. ἴδ-ρι-s, 'acquainted with' (knowing); l. *cele-r* (Gen. *cele-***ri**-s), 'quick' (hurrying).

A few occur in•-*lu*, -ru: s. bhî-**lú**, 'fearful;' áż-**ru** (dáż-ru), 'tear;' gr. δάκ-ρυ, 'tear;' go. *og-***lu**-s, 'heavy.'

Instances with the inserted vowel are: s. *chap-***alá**, 'trembling;' *mud-***irá**, 'a wanton;' *an-***ilá**, 'wind' (blowing); *vid-***urá**, 'knowing;' *harsh-***ulá**, 'gazelle;' gr. τροχ-αλό-s, 'quick;' στιβ-αρό-s, 'strong;' τραπ-ελό-s, 'easy to turn;' φαν-ερό-s, 'visible;' φλεγ-υρό-s, 'burning;' καμπ-ύλο-s, 'bent;' l. *ten-*er (st. *ten-*ero), 'tender;' *ag-***ili**-s, 'active;' *teg-***ulu**-m, 'roof' (covering).

Some secondary derivatives are in these forms, e. g. s. *azm-***ará**, 'stony;' żrî-**lá**, 'fortunate;' *médh-***ira** and *médh-***ilá**, 'intelligent;' gr. φθονε-ρό-s, 'envious;' χαμη-λό-s, 'on the ground;' l. *carnâ-***li**-s, 'fleshly.'

WA (VA).

279. The suffix -wa (va), Fem. wâ (vá), generally without the accent, forms *Appellatives*, e. g. s. áz-**wa**-s, 'horse' (runner); z. až-**pa**, where *w* has become *p*; gr. ἴπ-πο-s = ἴκ-κο-s for ἰκ-fo-s; l. *eq-***uu**-s; a. s.

eoh in which the formative is again dropped   *Adjec
tives* are also formed in the same way e σ s *rish* **wa**
  offending   ᵤr   perhaps   such   forms   as   δρομ ευ s
  runner⋆   1 *tor* **vu** s   stem   (piercing)   go *las us*
  (st *las* **iva**)   weak   e *laz* **y**   the formative being
represented only by *y*

WAN (VAN)

280   The suffix *wan* or *wan* (*van* or *van*) without
the accent forms   1 *Adjectives* with a participial mean
ing e g s *vaja da* **vân**   giving food   2 *Nomina
agentis* e g s *yaj* **wan**   sacrificer   3 *Appellatives*
e g s *ruh* **wan** tree (grower)   z *zar* **wan**   time
(destroyer)

This suffix appears also with an additional *t* in *rant
mant* (*vat mat* in weak cases)   In Latin there is a
chan ᵤe of *v* or *m* to *l* and a further addition of *o* in
  lento   In Greek the corresponding form would be Ϝεντ
or Ϝετ of which however the digamma is generally lost
and εντ ετ remain   The digamma is preserved in some
instances in an inscription found in the island of Corfu
in 1845 and published in 1846 by Professor Franz
(See *Zeitschrift für Vergleichende Sprachforschung*
i 118 119)   Among the instances where the digamma
is preserved is one word containing the formative in
question i e στονοϜεσσαν for στονο Ϝεντ ιαν   Other
instances of this formative are s *a wa* **vant**   hav
ing horses   *marut* **vant**   having Maruts (Indra)
gr υλη εντ (υληεις)   having wood   woody   πυρο
εντ (πυροεις)   having fire   l *puru* **lent** *us*   having
matter (*pus*)   *opu* **lent** (*opulens*)   having wealth

NU.

281. *Adjectives* and *Substantives* are formed by -*nu* with the accent, e. g. s. *tras*-**nú**-*s*, ' trembling ; ' *bha*-**nú**-*s*, ' sun ' (shiner); z. *taf*-**nú**-*s*, ' burning ; ' *jañf*-**nu**-*s*, ' mouth' (speaker); gr. λ.γ-νύ-*s*, ' smoke ' (↘ *dah,* ' burn '); l. *hg*-**nu**-*m* (fire) ' wood.'

MI.

282. This is perhaps only a weakened form of *ma,* Fem. *má.* It rarely occurs, but is found in a few *Appellatives* with the 'accent, e. g. s. *bhû*-**mí**-*s*, ' ground ; ' l. *hu*-**mu**-*s*, go. *hai*-**m**-*s* (st. hai-*mi*-), ' village,' e. *ho*-**me**. The two last denote resting or sleeping place, from the root s. *źî,* gr. κει.

KA.

The suffix *ka* with the accent is rarely used in immediate connection with the root, e. g. s. *zush*-**ká**-*s* (for sus-ka-s), ' dry ; ' z. *hush*-**ka** ; l. *sic*-**cu**-*s* (for sus-cu-s). A vowel is usually interposed between the root and *ka,* which then has not the accent, e. g. s. *nárt*-**aka**-*s*, ' dancer ; ' *jálp*-**áka**, ' talkative ; ' *mû'sh*-**ika**-*s*, ' mouse ' (stealer); *kâ'm*-**uka**, ' wanton ; ' *vâvad*-**û'ka**, ' talkative ; ' gr. φύλ-ακο-*s*, ' guard ; ' φεν-ακ-*s* (φέν-αξ), ' deceiver ; ' κηρ-ὐκ- (κήρ-ὑξ), ' herald ; ' γυν-αικ- for γυν-ακ-ι- (γυν-ή, ' woman '); l. *med*-**icu**-*s*, ' physician ; ' *am*-**icu**-*s*, ' friend ; ' *ed*-**âc**- (*edax,* ' devouring '); *vel*-**ôc**- (*velox,* ' swift,' *ô* = original *â*); *cad*-**ûcu**-*s*, ' falling.' In Greek *o*, and in Latin *u* (for *o*), corresponding to s. *a* in *ka,* are often dropped ; hence the Nom. Sing. ends in ξ for κs, and *x* for *cs.*

The English *ing* which is employed in forming *Ab
stract Nouns* and has gradually taken the place of the
active participle instead of *nd* for *ndh* = l gr s *nt*
is probably formed from this suffix by inserting the
nasal e g *king* for *l in* **ing** powerful is an adjective
unless it be an appellative from the root *jan* meaning
producer   The same form in *heal-***ing** is used both as
an *Abstract* and as a *Participle*

The suffix *ka* also forms secondary derivatives with *i*
or *u* inserted after consonant stems e g *madra* **ka**
of Madia land   *haimanti* **ka** winterly gr *πολεμι
κο s* warlike   *αστυ κο s* city like l *urbi* **cu** *s* adj
city   *hosti* **cu** *s* hostile   In Gothic this formative
which by the law of development should be *gha* appears
as *ga*   That the aspirate was pronounced originally
appears from the fact that in some of these words the
formative is *ha*   The final vowel is dropped as usual
before *s* of the Nom Sing   The vowel inserted before
ga has different forms e g *steina* **ha,** stony *moda*
ga angry moody *greda* **ga** greedy *mahtei* **ga**
mighty *handu* **ga** handy   As the sound of the
guttural aspirate is lost in English the consonant is not
generally preserved in writing but is represented here
by *y* as in many other cases   The English words cor
responding to the above Gothic ones end in *y* and that
this is for the aspirate appears from the fact that *g*
which is the regular substitute in German for English
gh is preserved in the same derivatives for *stein-***ig**
muth **ig** *macht* **ig** have the same relation in this respect
to e *ston* **y** *mood* **y** *might* **y** as *Tag* has to e *day*

Sometimes *s* is prefixed to *ka* e g gr *παιδ ισκο s*
little boy *στεφαν ισκο s* wreath   In Gothic the
final vowel is dropped before the sign of the Nom Sing
e g *barn* **isk** *s* The *s* has prevented the usual develop

ment of the consonant. Hence we have *sk* instead of
sgh. In English the two combine to form the sound
sh, and in German *sch.* In both these languages the
termination is extensively used, e. g. e. *child-*ish,
ger. *kind-*isch.

TU.

283. In Sanskrit *-tu* (sometimes *-thu*) forms
Abstracts. From the abstracts in *tu* the *Infinitive* is
derived. The form *thu* is illustrated in *vama-*thu-s,
though the corresponding word in Latin, *vomi-*tu-s,
'vomiting,' has not the aspirate. The regular form
in Gothic would have the aspirate. It occurs as *th*
in some instances, as *t* in others where the preceding
consonant prevents the aspiration, and in many cases as
d, which may have been pronounced *dh*, e. g. *dau-*
thu-s, ' death ;' *lus-*tu-s, ' lust.' In these instances
the English words have the same consonants, i. e.
*dea-*th, *lus-*t. go. *vratô-*du-s, ' travelling.'

Nomina agentis and *Appellatives* are also formed by
-tu, e. g. s. *bâ-*tú-s, ' sun ' (shiner); *tán-*tu-s, ' wire '
(drawn out); *jivâ'-*tu-s, ' life ;' gr. μάρ-τυ-s, ' witness;'
l. *principâ-*tu-s, ' princedom ;' go. *hlif-*tu-s, ' theft '
(lifting, gr. κλέπ-τω); *skil-*du-s, ' shield ' (coverer).
The English word has *sh* for *sk*, and preserves the for-
mative consonant *d.*

TANA.

284. The suffix *tana* is probably formed by a com-
bination of *ta* and *na.* It is affixed to adverbs of time
to form *Adjectives*, e. g. s. *hyas-*tána-s, ' of yesterday ;'
*żwás-*tana-s, ' of to-morrow.' The Latin forms are
terno, with *r* inserted, *tino*, and *tĩno*, e. g. *hes-*ternu-s,

of yesterday   *cras* **tinu** *s*   of to morrow   *vesper*
tinu *s*   of evening   This *r* appears also in the Ger
manic languages *ges* **tern** in German being an adverb
of time e *yes* **ter** having lost the *n* but preserved the
adjective meaning in *yes* **ter** *day*   The *n* is also lost
in Gothic *gis* **tra** but preserved in Anglo Saxon *gis*
tran

SYA

285 The suffix *sya* is used to form *Adjectives* e g
s *manu* **shya** *s* in German *men* **sch** man from
Manu   Either from this or with a primitive *r* we have
the Latin *a rio* denoting *persons* occupied with a
matter or what belongs to a thing e g *tabell a* **riu** *s*
letter carrier   *œr a* **riu** *s* coppersmith etc   In
Gothic *a rja* e g *soh a* **rja**   seeker   *vull a* **rja**
fuller   In English the *r* with the preceding vowel
when needed is preserved in a similar sense *bake* **r**
farm **er**   The Latin *r* and Gothic *y* (j) are preserved
in English as *y* in such words as denote the *place* where
things are produced and which correspond to such
Latin neuters as *poma* **riu**-*m*   orchard (lit apple
ground) e g e *bal e* **ry** *shi ubbe* **ry** unless these are
imitations of the French such as *boucherie* butchery

b) COMPOUNDS

286 Verbs and nouns are compounded with words
of the same or of other parts of speech

Verbal Compounds

Verbs are usually combined with *prepositions* and
rarely with any other words   The prepositions in Sans

krit are accented. In Greek the compound follows
the general rule of verbal accentuation, e. g. s. **ápa-**
krámati, 'he goes away;' **prá-***dravati*, 'he runs away;
gr. *ἀπο-βαίνει, προ-βαίνει*; l. **ab-***it* (in which *h* is irre-
gularly for *p*), **pro-***cedit*; go. **af-***gangith*, **fra-***létith*;
e. **under-***go*, **over-***run*.

The preposition and verb are sometimes separated
even in the oldest literature; e. g. *sam-indh* denotes
'kindle,' and **sam** *agnim indhaté nárah*, 'men kindle
fire.' So also, in Homer, *κατείβω* denotes 'shed,' and is
used in the same sense with the preposition combined
or separate, e. g. *Od.* xxi. 86, *τί νυ δάκρυ κατείβετον*,
'why ever are you shedding tears;' *Il.* xvi. 11, *τῇ (κούρῃ)
ἴκελος....κατὰ δάκρυον εἴβεις*, 'you are shedding tears
like a girl.'

This separation of the preposition is the general
practice in the analytical method of modern lan-
guages. In German the separable prepositions are
sometimes connected with the verb, but more frequently
separated, and sometimes placed after the verb, e. g.
er geht **ab**, 'he goes off;' **ab***gehen* and **ab-***zu-gehen*,
'to go off.' In English some compounds have the pre-
position immediately connected with the verb, but in a
sense different from that which the word has when the
preposition is separate, e. g. he **under***goes* and he
goes **under**; in these cases, however, the preposition
is prefixed to the verb in all its parts. The general
practice is to place the preposition after the verb, as in
the above instances. So also *he goes* **over** *the bridge*:
but in Latin, *fines Helvetiorum* **trans***ire* (Cæs.), 'to go
over the boundaries of the Helvetii.' In Latin the pre-
position is often used in both ways, both separate and
combined, in the same sentence, e. g. Lucr. vi. 668,
per*que mare ac terras* **per***currere*, 'and (over)run

both over sea and land   *Inseparable* preposit͞ons are generally retained in composition even in modern languages, e g e **be** *hold* **for** *gue* gei **be** *halten* **ver** *geben*

287 *Other words besides prepositions* are sometimes combined with *verbs* e g s **kundali** *karomi* I make into a ring   **eki** *bhavami* I become one gr δακρυχεων seems to imply the existence of a δακρυ χ῀ω I shed tears   and νουνεχοντως of a ν υνεχω I have sense   In Latin there are several e g **signi** *fico* I make a sign (e signify) from *signum* **bene** *dico* I speak well of from *bene*   In Greek and Gothic the words which seem to be compounds ₍of this kind are generally *denominatives* e g gr τοκογλυφεω from τοκογλυφος go *veit vodja* from *veit vod* s

Nominal Compounds

— **288** When two *nouns* are combined together if the first word has a vowel stem the vowel is either preserved in its original state or altered or dropped e g s **loka** *pala* s   guardian of the world **bhu** *dha* ⲥ s   bearer of the earth   gr σκια γραφο῀ s shadow painter   νικη φορο s victorious   l **albo** *galerus* white cap **mero** *bibus* drinker of unmixed wine   go **guda** *faurhts* ⲅod fearing **veina** *ga ds* vineyard **midja** *sveipeins* deluge **handu** *vaurhts* hand wrought

In the following the stem vowel is changed e g s **priya** *bharya* beloved wife from priya gr ημερο δρομο s day runner from ημερα l **lani** *ger* bearing wool from lana go **andi** *laus* end less from andja This change generally makes the stem vowel lighter but in a few instances it becomes heavier e g γεω

γράφ-ο-ς, ʻ geographer,' for γεο-, as in other com-
pounds.

When the first part has a consonant stem, the two
words are usually connected by a short vowel. It is,
however, not used in Sanskrit, e. g. *mandayát-sakha-s,*
ʻ rejoicing friends;' *kshayád-víra-s,* ʻ ruling men.' In
Greek *o* or *ι* is employed, e. g. παντ-ο-βίης, ʻ over-
powering all;' αἰγ-ί-ποδες, ʻ goat-footed' In Latin
i is used, e. g. *noct-i-color,* ʻ colour of night.' Some-
times the first word is considerably abbreviated, e. g.
op-(er)i-fex, ʻ worker;' *horr(ór)-i-ficus,* ʻ horrifying.'
The Gothic has but few consonant stems, and no con-
necting vowel.

Stems ending in *s*, both in Greek and Latin, some-
times omit the connecting vowel, e. g. σακες-φόρο-ς,
ʻ shield-bearer ;' μυς-κέλενδρον (for the Gen. μυ-ός is for
μυσ-ος), l. *mus-cerda.*

On the other hand, a connecting vowel is sometimes
used in Greek even after vowel stems, e. g. ἰχθυ-ο-φάγο-ς,
ʻ fish-eater ;' φυσι-ο-λόγο-ς, ʻ naturalist.'

In some cases the *final consonant is dropped.* *n* is
thus omitted in s. *rája-putrá-s,* ʻ king's son,' from
rájan; l. *homi-cída,* ʻ homicide,' from homo, ʻGen.
homin-is ; go. *smakka-bagms,* ʻ fig-tree,' from smak-
kan. In Greek *ν* is preserved, e. g. παν-δήμο-ς, ʻ of all
the people ;' but *τ* is omitted from μ*ατ*, which sometimes
becomes μο, e. g. ὀνομά-κλυτο-ς, ʻ celebrated.' σπερμο-
φόρο-ς, ʻ seed-bearer,' is perhaps for σπερμ(ατ)-ο-φορο-ς.

289. Both Zend and Greek furnish instances of the
Nominative case being employed in the first part of a
compound, e. g. z. **daivô**-*dâta,* ʻ made of God,' *ô* being
=s. *as* ; gr. θεός-δοτο-ς, ʻ given of God.'

The *Genitive* occurs in the first part of compounds
in both Greek and Gothic, e. g. gr. νεώς-οικοι, like

_ei *schiff* s hausei   ship sheds   ουδενος ώρα ´ fit for nothing   go **baurg s** *iaddjus*   city wall

290 A classification of compounds is made by Sanskrit grammarians which it may be useful here to introduce   They are arranged in six classes

1 *Copulative Compounds*

291 Two or more *Substantives* are united together with a common termination   Their union serves the same purpose in regard to meaning as connecting them to ether by a conjunction   Some of them have a plural (or dual) termination and others a neuter singular e g s *surya ch ind a nasau* sun (and) moon   *pitai a natar* **au**   father (and) mother   *agni vaju ravi* **bhyas**   fire air (and) sun   There is no limit to the number of words which may be thus combined together   Those compounds which have a neuter singular ending consist of words denoting inferior objects e g *hasta pada***m**   hands (and) feet   gr νυχθημερον   night (and) day   βατραχο μυο   in βατραχομυο μαχια   the war of frog (and) mouse   1 *suovitaui ilia* has a neuter plural ending   and consists of three substantives thus combined together   su ovi tauri lia   which is also abbreviated to *solitau ilia*   the solemnities during which were sacrificed a pig sheep (and) bull

Adjectives are also thus combined though less frequently   e g *vrtta pina*   round (and) thick   gr λευκο μελας   white (and) black

2 *Possessive Compounds*

292 *Possessive Compounds* express the possession of what is denoted by the several parts of the compound

They are sometimes appellatives, but most generally adjectives. The first member may belong to any part of speech except verb, conjunction, or interjection. The last must be a substantive, which undergoes no change except in the expression for gender, to adapt it as an *adjective* for all three. The accent is in Sanskrit upon the first member, as it would be in a separate state. In Greek it follows the general rule, being placed on the third quantity (short syllable) from the end.

The first part is most frequently an *adjective* or participle, e. g. s. **chá'ru-**-*lóchana-s*, 'with beautiful eyes;' gr. λευκό-πτερο-s, 'with white wings;' l. **atri-**-*color*, 'of a black colour;' go. **hrainja-**-*hairts*, 'with a pure heart;' e. **pure-**-*heart-ed*. The form of the passive participle is used in English, as if derived from a verb.

The first part is a *substantive* in s. **bá'la-**-*putra-s*, 'with a child as son;' gr. βου-κέφαλο-s, 'with an ox's head;' l. **angui-**-*comu-s*, 'with snakes for hair;' e. **pig-**-*head-ed*.

The first part is a *pronoun* in s. **mád-**-*vidha-s*, 'of my sort;' gr. αὐτο-θάνατο-s, 'having death from oneself,' i. e. · suicidal.'

The following have a *numeral* in the first part: s. **chátush-**-*pád*, 'with four feet;' gr. δι-πόταμο-s, 'with two rivers,' said of Thebes; l. **bi-**-*corpor*, 'with two bodies,' applied to the Centaurs; go. **ha-**-*ihs*, 'with one eye;' e. **two-**-*head-ed*.

The following have an *adverb* in the first part: s.**táthá-**-*vidha-s*, 'of such a sort;' gr. ἀεί-καρπο-s, 'ever with fruit.'

The following have a *privative* in the first part: s. **a-**-*malá-s*, 'without a spot;' gr. ἄ-φοβο-s, 'without fear;' l. **in-**-*somni-s*, 'without sleep.' In s. and gr. the *n* is preserved only before vowels, as in the English

article *an* but before consonants also in Latin as the
article in German *ein Kopf* a head   Similar com
pounds are formed in English by affixing *less* 1 e *fear
less spo less*

The following have a *preposition* in the first part
s **apa** *bhi s* without fear   **sa** *kama s* with de
sire   gr αποκληρο s without a share   συν θοονο s
with the same throne   l **ab** *normi s* without rule
con *color* of like colour   go **af** *gud s,* without
God   **ga** *gud s* with God   godly

3 *Determinative Compounds*

293 The first member as in the previous class,
may be any part of speech but verb conjunction or
interjection   The last member is a noun   The most
usual combination is an *adjective followed by a noun*
The first part modifies or *determines* the meaning of
the second   The accent in Sanskrit 1 usually at the
end of the word   in Greek it follows the general rule
of being on the third quantity (short syllable) from the
end e g s **divya** *l usuma s*   a heavenly flower
ghana *yama s* black as a cloud   **zyena** *patat*
with a falcon s flight   gi ισο πεδο ν an even plain
ημι κεν s half empty   μεγαλο μισθο s with great
pay l **semi** *mor tuu s* half dead   **decem** *vir i* ten
men in *imicu s* enemy   go **junga** *lauth s*   a
young man   **anda** *vaur d s* answer   **ufar** *gudja*
high priest   e **high** *priest* **half** *way* in *road*
proper names   **White** *field* **Broad** *head*

4 *Dependent Compounds*

294 The first member is *dependent* upon the
second and expresses the meanings of the case forms

in words uncompounded. In English the relation of
the first to the second member has to be rendered gene-
rally by a preposition. The accent is on the first mem-
ber in Sanskrit and in Greek when possible. *Genitive*
relation: z. **zantu**-*paiti-s*, 'lord *of* the city;' gr.
ὀικό-πεδο-ν, ' floor *of* the house;' l. **auri**-*fodína*, 'a
mine *of* gold;' go. **aurti**-*gard-s*, 'a garden *of* vege-
tables' (e. *orchard*). *Accusative*: s. **arin**-*damá-s*, 'sub-
duing enemies;' gr. ἱππό-δαμο-ς, 'subduing horses;'
l. **ovi**-*par-u-s*, 'bringing forth eggs.' *Instrumental*:
s. **páti**-*jushthâ*, 'beloved *by* a husband;' gr. χειρο-
ποίητο-ς, ' made *by* hand ;' go. **handu**-*vaurht-s*, 'made
by hand;' e. **hand**-*wrought*. *Dative*: s. **pitṛ**-*sadṛza-s*,
'like (*to*) the father.' *Ablative*: s. **nabhas**-*chyutá-s*,
'fallen *from* heaven.' *Locative*: s. **nâu**-*sthá-s*, 'standing
in a ship.'

None of the other languages has so great a variety
and abundance of this class of compounds as the Sans-
krit. The English language has preserved less facility
in forming compounds than the German. It supplies
their place by foreign words, or by using prepositions.
Such forms as the following express the meaning of
dependent compounds, i. e. **gold**-*mine* = a mine *of*
gold, **door**-*keeper* = keeper *of* a door, **spring**-*water* =
water *from* a spring, **reading**-*room* = a room *for* read-
ing, **finger**-*post* = a post *with* a finger ; and in proper
names : *Hilton* (hill-town) = a town *on* a hill, *Johnson*
= son *of* John, *Whetstone* = a stone *for* whetting, *Cart-
wright* = a maker *of* carts.

5. *Collective Compounds.*

295. *Collective Compounds* consist of a *numeral*
for the first member and a *substantive* for the last, with

an oxytone accent in Sanskrit and an accent a cord
ing with the general rule in Greek These compounds
end as neuters in *a m* or feminines in *ι* in Sanskrit
as neuter in *m* or *u m* in Latin and as feminines in *ια*
in Greek Some add in s *ya m* gr *ιο ν* l *ιu m*
e ϱ s **tri** *guna m* or **trai** *gun ya m* three qualities
tri *loki* three worlds gi τετρα οδ ιο ν four ways ‸
τετρα νυκτ *ια* four nights l **bi** *dau ιι* two days
bi *noct ιu n* two nights In English a few such
compounds occur e σ **twi** *light* =two lights **se** *n night*
=seven nights (a week) **fort** *night* =fourteen nights

6 Adverbial Compounds

296 These consist of a *preposition* the *negative
particle* or an *adverb* as the first member and a *sub
stantive* as the second The accent is as in the fifth
class e g s **praty** *aha m* daily (for the day *per
diem*) **a** *san aya m* without doubt **yatha**
raddha m according to belief gi αντι βιην vio
lently (in return) l **præ** *modu m* beyond measure
Such adverbial compounds as gi ση μερο ν l **ho** *die*
e **to** *day* have a *pronoun* as the first member

XII. INDECLINABLE WORDS.

297. *Indeclinable* words are such as undergo no change of form, though many of them are themselves special forms of inflected words. Particular cases of nouns often assume the character of indeclinable words, especially those cases which have gone out of general use, such as the instrumental, ablative, and locative. The imperative mood of many verbs is also thus employed as conjunctions. We shall notice only a few such instances as illustrate the identity or the analogy of the methods resorted to in different languages. The complete analysis and enumeration of indeclinable words belongs to special grammar.

1. ADVERBS.

298. *Adverbs* are formed in a variety of ways, but are usually either *abbreviations* of words belonging to other parts of speech or particular *cases* of nouns, or are formed by special *suffixes*.

a) Abbreviations.

s. *sadyás*, 'immediately,' abbreviated from sa divas, 'this day;' ger. *heu-te*, 'to-day,' in which *te* is abbreviated from *Tag*.

b) Cases of Nouns.

Of particular *cases* there are s. Acc. Neut. *áshú*, 'quickly;' Instr. Sing. *dákshinéna*, 'southwards'

(lit by the right hand) Plur *uchcha is* on nigh
Dat *ahnaya* soon (lit to the day) Ablat *pa chgt*
 afterwards   westward (lit from behind) Genit
chn asya at length (lit of long) Loc *pi ahne* in
the forenoon

In Greek Acc Sing μέγα Pl μεγαλα greatly
Abl Sing the adverbs in ως (for ωτ) generally επ9εως
 quickly Gen ομου altogether

In Latin Acc *multum*   much Abl *multo* unless
this form was originally Dative i e Locative in much
Loc *nove* = novo + i as the s nave = nava + i `newly
The forms in e are by some regarded as for ed and
therefore Ablatives after the analogy of *facilluried* in
the Senatusconsulto de Bach

In Gothic Acc *filu* much   Abl *wha thio* from
whence   Gen *allis* wholly   In English the case
sign is generally lost as in *yesterday* as compared with
Gothic *gistradagi s* where s is the Gen sign

c) *Adverbial Suffixes*

Several special *suffixes* are used in forming adverbs

Adverbs of *place* are formed by adding *tra* to pro
nouns s *ta* **tra** there gr εν 3α the r being dropped
after perhaps having caused the aspiration of the dental
In Latin *ci* **tra** on this side   In Gothic *thra* was
used in the same way as is seen in the Abl *tha* **thro**
f om there

In English and modern languages generally adverbs
are formed from adjectives by adding another word
e g *wise* **ly** from *wise* by adding *ly* (for like)
other **wise** by adding *wise* (for ways) to *other*   Adverbs
are also formed by prefixing prepositions to nouns e g
a*ground* **a***float* **a***new* for on ground etc

2. CONJUNCTIONS.

299. *Conjunctions* are indeclinable words which grammatically connect together single words or phrases or sentences, e. g. white *and* black, a white horse *and* a black horse, this horse is white *and* that is black. The formation of *Conjunctions* illustrates the operation of the same general mental laws, in the fact that throughout the Indo-European languages they are mostly derived from the pronominal stems; but the independence of action in the different branches of the one family is also shown in the fact that conjunctions which are to have the same meaning and to be employed in the same way are derived from different pronominal stems. This circumstance also makes it probable that many at least of the conjunctions were brought into general use only after the various tribes, which formed different languages out of the common stock of words, had separated from one another.

Thus, for instance, the following words correspond in meaning and construction, though derived from different stems: s. *yat, yâthâ,* gr. ὅτι, ὥς, ἵνα, from the stem of the relative pronoun; l. *quod, ut,* the first and perhaps also the second being from the stem of the interrogative pronoun; go. *thatei,* e. *that,* ger. *dass* (for dats), from the demonstrative pronoun. It is evident that these were not *derived* one from another; it is also probable that they did not coexist as conjunctions in the same original language, but that their employment gradually arose after the languages had acquired a distinct individuality. When a sentence, i. e. a combination of words containing a finite verb, is to sustain the relation of a nominative or of an objective to another

verb this relation is expressed by interposing the con
junction *that*   To make the sentence *he is good* an
objective to *I know* they are thus arranged I knew
that he is good=he is good I know that   So also to
make the sentence *this is a pleasant country* the
subject or nominative to *is u ll l nown* they are thus
arranged   it is well known *that* this is a pleasant
country=this is a pleasant country that is well known
The neuter pronoun *it* has to be placed at the beginning
to intimate that the subject will be expressed after its
verb

Again s *tu* gr δε are from the demonstrative stem *ta*
gr *αλ λα* from the demonstrative stem *anu* 1 *se d* the
ablative case of the reflexive stem meaning but   In
English *o ily* for *only* used as a conjunction may be
also from the pronominal stem *ana* like the above
Greek word

The conditional conjunction meaning if is s *ya di*
go *ja ba* (=ya va) *i ba* e *if* ger *ob*   The suffix in
the Germanic languages differs from that in Sanskrit
In both English and German the pronominal root and
the formative suffix are each reduced to a single letter In
Anglo Saxon the sound *y* is represented by the letter *g*
and this conjunction is therefore written *gif* It is thus
easily confounded with the imperative of the verb to
give   The Germanic suffix is the exact representative
of that which appears in Sanskrit as *apa* and in Latin
as *pe* e g s *yadyapi*=yadi+api although   even if
1 *quippe*=quid+pe   It is not connected with the
stem of the relative pronoun in Latin but with the
accusative singular neuter and the meaning consequently
differs from that in the other languages   In the Greek
word *o κα* there is the stem of the relative pronoun
and possibly also the same suffix as in the Gothic *ja ba*

though both its form and meaning suggest doubts on this point.

3. PREPOSITIONS.

300. The *Prepositions* also have evidently the same origin in different languages, though they have in particular instances acquired some variety of meaning and application.

They appear to be generally formed from pronominal stems, as s. *á-ti* from *a*, *ú-pa* from *u*, etc., and to be employed primarily to denote the relation of substantives (i. e. things) in regard to place, e. g. a bridge *over* a river, a mine *under* ground, an army *before* the town, a house *behind* the church, etc. From this use they are extended by analogy to express other meanings.

Of the same origin, and similar in meaning, are, s. *ápa*, ' from ;' gr. *ἀπό*, l. *ab* (for *ap*), go. *af*, e. *of*.

s. *úpa*, ' near ;' gr. *ὑπό*, ' near,' and ' under ;' l. *sub* ; go. *uf*, ' under ;' e. *off*.

s. *upari*, ' over ;' gr. *ὑπέρ*, l. *super*, go. *ufar*, e. *over*, ger. *uber*.

The Germanic preposition, go. *út*, e. *out*, ger. *aus* (for auts, o. ger. *úz = úts*), appears to have no exact representative in the Asiatic languages. The Sanskrit *ut*, ' up,' ' upwards,' with which it is compared by Bopp, differs from it in everything. s. *ut* has a short vowel, go. *út* long. It has the consonant *t*, which the Gothic would require to be *d*, and the meanings are quite different.

s. *prá-*, ' before ;' gr. *πρό*, l. *pró*, go. *fra*, e. *fore*.

s. *práti*, ' towards ;' gr. *προτί* (hence *ποτί* and *πρός* for *προτ*). The Latin forms are irregular, e. g. *por* in *por-rigo*, etc. e. *forth* has the same change of *or* for *ro* as in Latin.

s *sakam* with gr ξυν (for σκυν) and then συν

l *cum* = s kam

The Zend furnishes a connecting link with a preposition extensively used in the European languages z *mad* with gr μετα go *mith* e *with* a s both *mid* (for *midh*) and *with* ger *mit* (for *mid*) The English has changed *m* to *w* and the German writes as it usually pronounces *t* for final *d*

A verbal root s *tr* or *tar* seems to be employed in s *tiras* across l *t ans* go *thanh* e *through* (thorough) ger *durch*

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